OCTOBER 23, 1937

Railway Age

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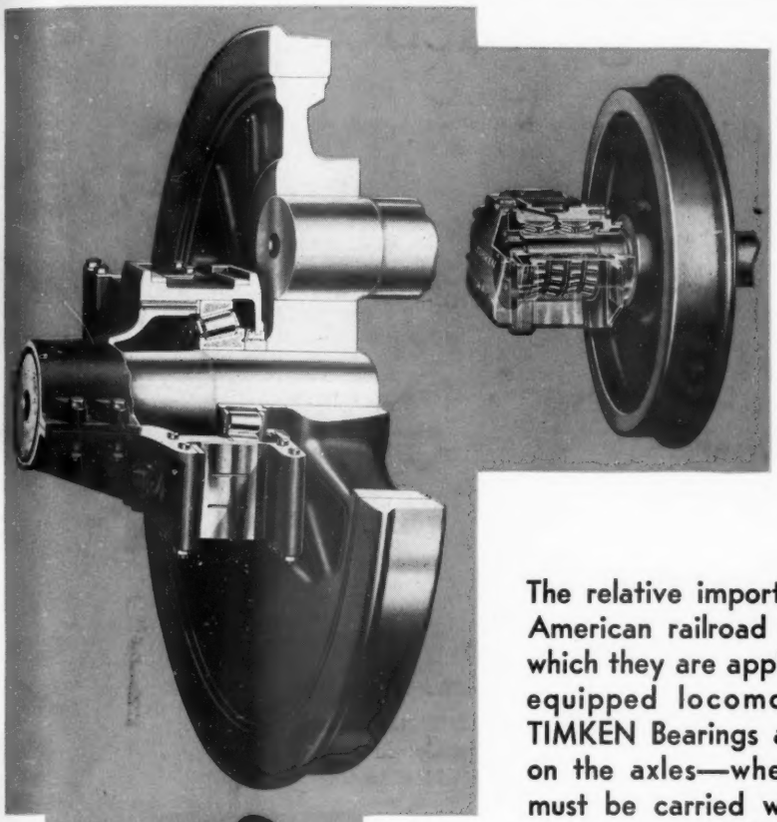

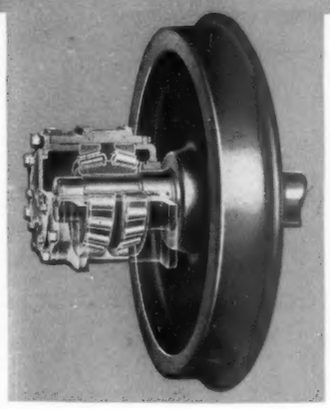

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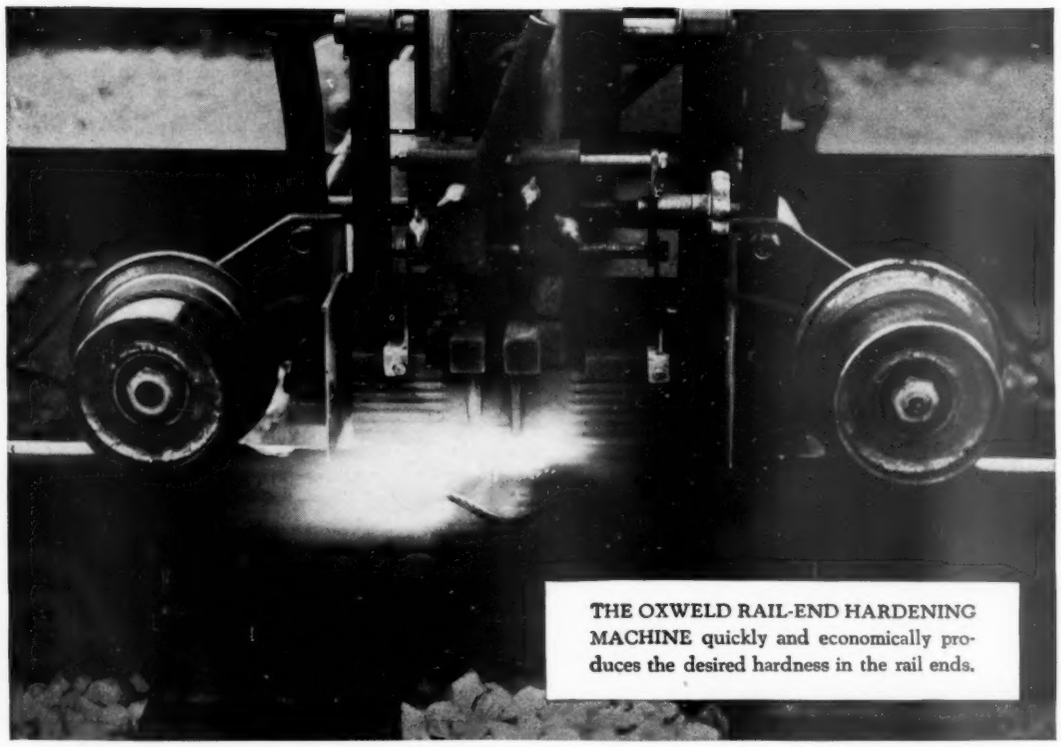

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1912-1937

A QUARTER OF A CENTURY OF SERVICE TO THE MAJORITY OF CLASS I RAILROADS

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Vol. 103 October 23, 1937 No. 17

In This Issue

Huge Scrap Plant Opened on New York Central . . . . . Page 555

Part 1 of an article telling of the dismantling of equipment, handling of scrap and reclamation under one roof in a new operation.

Burgess Air-Delivery System Tested 562

A test report by the A. A. R. shows the exceptionally favorable temperature distribution and air movement in air-conditioned cars.

T. & P. Expands Highway Service 575

A Motor Transport article relating how this road, one of the first to co-ordinate rail operation with trucks, now has a system-wide coverage.

EDITORIALS

Responsibility of Government and Business 551
An Essential Distinction Between Rates and Fares 553

GENERAL ARTICLES

Huge Scrap Plant Opened on New York Central 555
I.C.C. Practitioners Meet at St. Louis 560
Burgess Air-Delivery System Tested 562
Erecting Longest Railroad Girder 565
Accidents in 1936 567
Safety As a Railway Problem 569
Traffic Clubs Do Not Want Government Ownership 572

MOTOR TRANSPORT SECTION

T. & P. Expands Highway Service 575
Express Trucks Handle C. & D. Service 577
German Expert Explains Truck-Rail Co-ordination 579
C. P. Auto-Ferry Service 580
Columbia Terminals to Operate M. P. Trucks 580
Auto-Railer Locomotive 581
Praises Restriction of Motor Affiliates 581
Schools for Railway Motor Drivers 582
French Plan Co-ordination 582
National Trailways Grows 582

NEWS 583

The Railway Age is indexed by the Industrial Arts Index and also by the Engineering Index Service

A LARGE VOLUME OF BUSINESS IS NOT NECESSARY

for

CAR RETARDERS

to pay their way.

A survey of all car retarder installations made by the A.A.R. Signal Section in 1933, disclosed that "it is not necessary to have a large volume of business for the retarders to pay their way and this feature is brought out in an article in the May 1933 issue of Railway Signaling." The economies effected by continuing the use of retarder yards during periods of light traffic, such as experienced at that time, was clearly demonstrated. » » »

Since car retarders effect savings during lighter traffic periods, consider the savings possible under increased traffic conditions. Look at the facts as disclosed by this survey and then decide whether you, too, can make a worth while operating saving by installing car retarders in your classification yards. » » » » » »

Our engineers are available on any classification yard problem. Consult our nearest office. » » » »

1327

1881 **Union Switch & Signal Co.** 1937

SWISSVALE, PA.

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The Week at a Glance

CARLOADINGS: In the October 9 week car loadings showed *a decline of about ¾ per cent under last year's total* (the actual figure for October 9 being 815 thousand).

●

MONEY ON STRIKE: As General Johnson said, in effect, over the radio the other night "when dollars go to work, men go to work, and when dollars quit working, men quit working." Well, in the railroad business, the labor crowd took about all the wages away from railroad dollars —and as a result men, as well as dollars, are going into unemployment. An editorial herein adumbrates one source of the current labor union delusion that high wages for labor (to the point of taking all the wages away from capital) is the path to general prosperity.

●

N. Y. C. SCRAP PLANT: The largest railway scrap plant under one roof (and one of the two largest in the country) is now in full operation at Ashtabula on the New York Central, a steel car shop having been converted to this use. The plant tears down all retired rolling stock and handles reclamation. An article with illustrations elsewhere in these pages describes the plant and its work.

●

COACH AIR INQUIRY: An improved method of air distribution for air-conditioned cars has been under investigation by the A.A.R. research division, and an article herein sets forth the results achieved by this equipment and conclusions reached from observing it in operation.

●

LONG GIRDER: A girder over 162 feet long was recently applied in the Monongahela bridge of the P. & L. E. at Homestead, Pa. The installation, which has several unusual features, is described in an illustrated article herein.

●

SEPTEMBER GROSS: Operating revenues of the first 83 per cent of the railroads which reported to the A.A.R. for September were only 0.6 per cent above last year. Freight revenues were actually down 0.2 per cent, but the gross was saved by an increase of 6.6 per cent in passenger revenues.

●

WATERWAY GIMME GANG: The Atlantic Deeper Waterways Association, meeting in Atlantic City last week, listened to oratory from the Hon. J. Hampton Moore, Philadelphia Republican statesman, condemning the railroads for their opposition to the trans-Jersey canal. He "proved" the economy of water transport by citing lower rates. Well, Hampton, you get Uncle Sam to pay the cost of providing and maintaining railroad roadway and get New Jersey to remit taxes (which is what the waterway "gimme" boys ask for the Jersey canal), and then maybe you might make some rate comparisons which would be honest. Meantime Jersey's Senator Moore, running for governor, has been boasting how he helped prevent Jersey's tax-ridden railroads from getting tax relief from the federal courts. Jersey may be the garden state, but it is not the Garden of Eden—not for railroads anyhow.

●

FARES UNLIKE RATES: A change in freight rates does not necessarily effect the volume of traffic, whereas a change in passenger fares usually has a vital effect on traffic volume. An editorial herein discusses the fundamental distinction between passenger fares and freight rates, expressing the hope that in preparing plans for proposed rate increases this basic difference may be given full consideration.

●

TRUCK DRIVERS' HOURS: The various labor organizations (including the railroad brotherhoods) which have intervened in the I.C.C.'s proposed prescription of maximum hours for motor carrier employees have asked the I.C.C. to hold up Examiner Snow's proposed rules until scientific tests can be made to determine actual fatigue which develops as driving hours increase. The unions are opposed to the 60-hours-a-week and 15-hours-a-day maxima and they prefer the *status quo*, pending a scientific study, to any official approval of Mr. Snow's liberal estimates as to what drivers can "take." T. H. McGrath, representing the train service unions, urged particularly that no seal of approval be put on the so-called "sleeper" cab.

●

WANTS COST RATES: Commissioner Eastman, addressing the short lines in Chicago this week, urged the railroads to get busy co-ordinating terminals and other services and to leave off chasing the Pettengill bill "will-of-the-wisp." He plumped also for cost finding, and rates based on costs, contending that competitive rates are at too low a level.

●

PENNY-WISE ECONOMIES: Directly counter to Mr. Eastman's plea for "co-ordination" (presumably with liberal use of the surgeon's knife) comes Paul Shoup's prescription (to the Western Railway Club) of "more, better and cheaper" service. Mr. Shoup believes that economies from co-ordination would be "dearly bought if at the expense of progress," and he would educate the public to support an expanding, rather than contracting, railway service.

●

WHO CAUSED SLUMP?: Several possible causes for the severe decline in the stock market are analyzed in the leading editorial herein—and it is clearly shown that New Deal policies are not the sole cause by any means (its reciprocal tariff policy, for instance, being a definite aid to recovery). Administration tax and labor policies are shown to have contributed to the debacle, but business leaders, by raising wages and prices too rapidly, must bear their share of the blame.

PENSION ASSN. WANTS MORE: The more you give the more they demand, as any indulgent parent can testify from sad experience. The Railroad Employees National Pension Association meeting in Chicago last week declared the Railroad Retirement Act to be "wholly inadequate." They want disability pensions, even though disability is not total but applies only to the employees' regular work. Annuities for widows are also demanded, as are hikes in minimum and maximum pensions. In all, seven new demands are made—all being enumerated in an item in the news pages herein.

●

1936 ACCIDENTS: Total railway fatalities in 1936 were up 5.7 per cent and injuries 23.6 per cent over 1935. Train accidents brought an increase of 15.9 per cent in deaths and 46.5 per cent in injuries. Such accidents due to "condition of track or equipment" were 58 per cent of the total. These figures, analyzed in further detail in an article herein, suggest the question: With train accidents on the increase, and being mostly ascribable to condition of track and equipment, what would accident performance be if a train-limit bill enforced an increase in train-miles and, at the same time, because of its cost, made necessary further retrenchment in maintenance expenditures?

●

B. R. T. A BUS UNION: In contrast to other railway unions, whose prosperity is linked exclusively with the future of the railroads, the Brotherhood of Railroad Trainmen—with its rights as exclusive bargaining agent for drivers of nine subsidiaries of the Greyhound Lines—also has a "gate" interest in bus operations. However, the B. R. T. recently lost a N. L. R. B. election to a rival union on the Southeastern Greyhound.

●

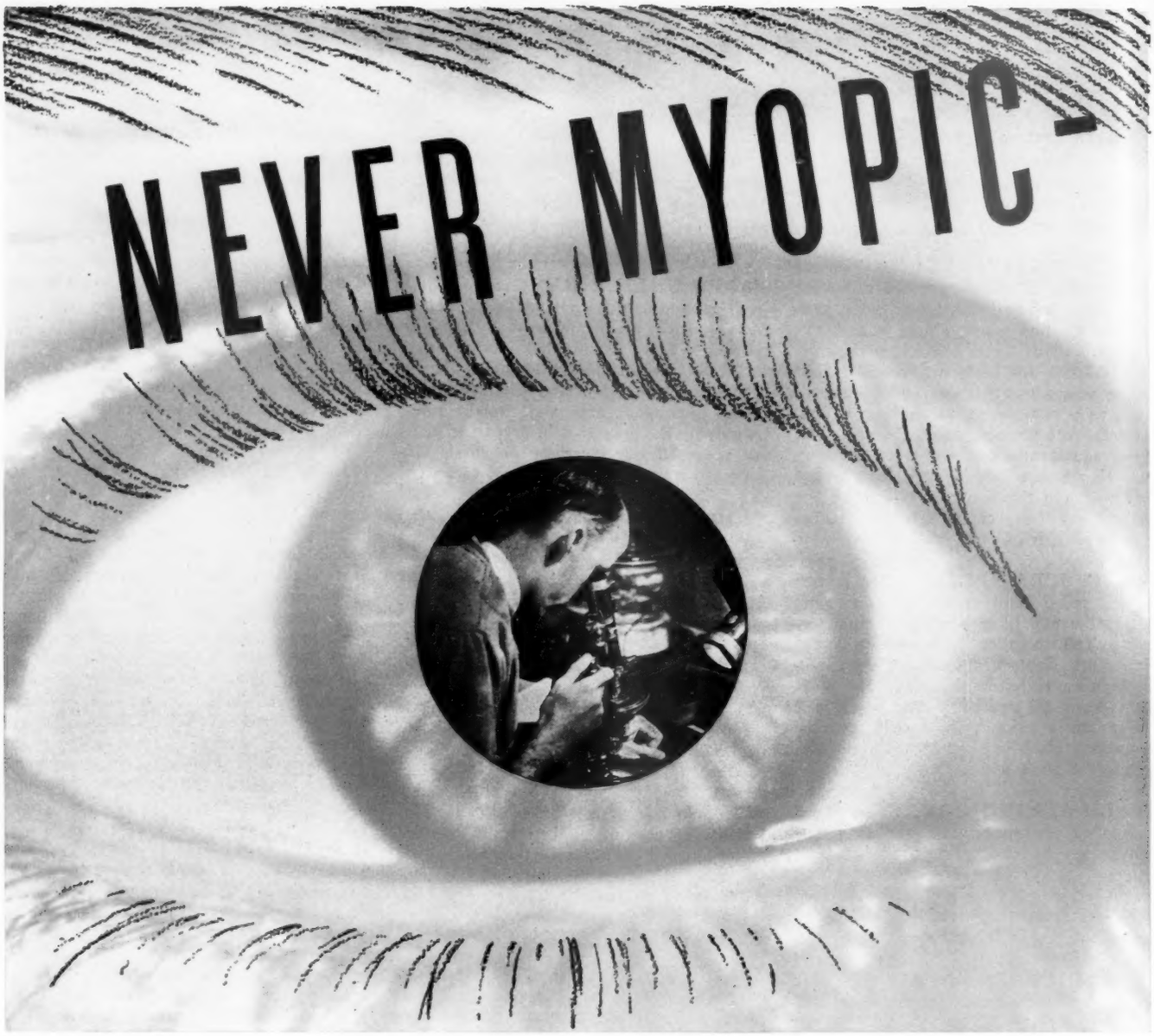
PAY OFF R. C. C.: Of the 53 railroads which received loans from the Railroad Credit Corporation in order to meet fixed interest obligations, 33 have repaid in full. Total loans were 74 millions, and 53 millons have been paid back.

●

I.C.C. SABBATICAL: Commissioner Eastman has expressed a wish that sabbatical leave were provided for the I.C.C. to study abroad. Agreed—first stop England, to learn how rate increase cases (providing twice the money needed to meet a wage rise) are decided in 17 days.

●

R.F.C. CLOSES SHOP: President Roosevelt on Monday called for a shutdown on new loans by the R.F.C. and P.W.A. Whether or not this means that the R.F.C. will be allowed to make loans to which it is already committed—and to which certain railroads are looking to meet contingencies—is not known at this time. But, such commitments excepted, it certainly does mean that Uncle Sam has taken the first step toward retiring from the pawnbrokers' trade.



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GENERAL OFFICES . . . CLEVELAND, OHIO

RAILWAY AGE

Responsibility of Government and Business

What is occurring in business in general, and on the railroads in particular, raises some very interesting questions regarding business policies as well as government policies.

Last May railroad freight loadings were 16.3 per cent larger than in May, 1936. Their trend has been steadily downward since with the result that in the week ended on October 9 they finally became slightly less than in the corresponding week of 1936. These figures indicate that, allowing for seasonal variations, the country's total volume of construction, production and commerce declined relatively about 15 per cent within the last five months.

If this decline had occurred after full recovery from the depression it would have been less significant. But there had not occurred anywhere near full recovery before the decline began. Even during the first five months of 1937, when the total volume of construction, production and commerce was the largest since recovery commenced, it was only about as large as in the same part of 1931, was substantially smaller than in 1930, and was at least 20 per cent less than it averaged in the five years 1925-1929, inclusive. The occurrence of so sharp a recession when, although the real bottom of the depression was five years behind us, full recovery had not been accomplished, demands a more adequate explanation than it has yet been given. Why was recovery incomplete eight and a half years after the beginning of a depression and five years after it reached bottom—something unprecedented in the history of this country? And why did a marked recession begin when recovery was still so far from complete?

New Deal and Business Recession

An easy explanation for critics of the New Deal is that these phenomena are due to New Deal government policies and fears of their extension and intensification. But all of the New Deal's economic policies are not considered bad even by economists who are opposed to most of them. One of the requisites to a revival of both international and domestic business is freer trading across national boundaries; and this the Roosevelt administration has been trying to promote by its reciprocal tariff policy. The administration may have gone too far in its regulation of the security markets; but plainly some of the abuses in financing before the New Deal began, from which the railways themselves were not entirely exempt, indicated that some measure of regulation was needed for the protection and encouragement of small investors. The terrific decline that has occurred in stock market prices can hardly be reasonably attributed mainly to regulation of the security exchanges in view of the fact that it has occurred concurrently with a sharp decline of the gross earnings and profits of business.

Some of the principal taxing and regulating policies of the New Deal undoubtedly are in large measure responsible for the failure of complete recovery to occur and for the recent recession in business. The law taxing undistributed earnings doubtless is as bad a tax law, because of its tendency to discourage investment of earnings, as ever was enacted; and, of course, business has no choice but to comply with it. The policies of the administration encouraging rapid advances in wages and prices also have had a similar tendency. The economic theory upon which the administration's policies of stimulating advances in wages and taxing undistributed earnings have been based is that advances in wages will increase the purchasing power of labor, that the distribution in dividends of practically all the profits made by business will increase the purchasing power of stockholders, and that this increase in the purchasing power of both labor and stockholders will cause an increase in the demand for and production of consumable commodities which indirectly but finally will increase the demand for durable goods.

The theory disregards vitally important facts. One of these facts is that the bulk of the buying of durable goods is done by business directly and indirectly with its profits, and that advances in wages, unless offset by advances in prices, will immediately curtail current and prospective profits and thereby curtail buying of durable goods. It also disregards the fact that if advances in wages are made too rapidly, and advances in prices are made too rapidly to offset them, prices may become so high that buyers will refuse to pay them. Many buyers, whether of consumable or durable goods, are not either investors in, or managers or employees of, industry. Some 60 per cent of the population does not derive its income from what is called "industry." If for good reasons or for no reason a large part of the public

refuses to pay the prices asked for consumable or durable goods or both there immediately occurs a recession in business. This seems to be the principal explanation of the recent recession.

Responsibility of Business Management

But can the administration be fairly held responsible for all the advances in wages and prices that have been made? It can be truly said to have encouraged them although recently some of its spokesmen have been criticising advances in prices. It may be truly said also that in some cases, as in that of the railways, advances in wages have been agreed to by managements of business, not because of belief that they were economically justified, but because of fear that still larger advances might be forced upon them by strikes or government action. But it seems an indisputable fact that most of the advances in wages that recently have been made in industry have been made to placate the administration and labor rather than because managers of business have believed that they were unavoidable or economically justifiable, and that likewise most advances of prices have been made, not because government policies or pressure made them unavoidable, but because business, for reasons of its own, whether good or bad, decided they were expedient.

The developments that have occurred obviously raise questions regarding the responsibilities of business management and the economic soundness of its policies, as well as regarding the responsibilities of government and the economic soundness of its policies. What should the managements of large industries do regarding government economic policies which they believe to be unsound and which they are not actually required by any constitutional legislation to carry out? Suppose, to be more specific, that it is the avowed policy of government to promote advances in wages and prices so great that leaders in industry and transportation believe they will not only arrest improvement in general business, but cause a decline which would be very harmful to practically all of the people excepting the comparatively small number who would remain employed at the higher wages. To what extent, if any, should leaders in industry and transportation acquiesce in and carry out these unsound economic policies because of fear of government and upon supposed grounds of expediency? How much should they resist them by refusing to make advances in wages and prices which they believe to be unwarranted and by trying to educate and arouse public sentiment?

The Railroad Example

The situation outlined is by no means entirely theoretical. The railways recently were actually confronted with it. If the recent recession of business has been mainly due to advances in wages and prices that were excessive at the stage of recovery that had been reached, the managements of the railways were in no measure responsible for it prior to August 1, although it had then been occurring for two months and was in full swing. From April 1, 1935, to August 1, 1937, the basic wages paid by the railways were the same as before the depression and their freight rates during this period were—as they still are—lower than either before the depression or during the preceding years of the depression. By charging relatively low rates, improving their service and largely increasing their buying, the railways contributed their full share toward the improvement of general business that occurred without interruption from about August 1, 1935, to about June 1, 1937. But meantime there were rapidly occurring advances in wages and prices in other major industries, of which the railways, as buyers, were having to pay their share. Finally, in the spring of 1937 they were confronted with demands that they should advance the wages of their employees to higher levels than ever before reached. In the midst of the negotiations with the labor leaders it became evident that there was occurring the recession of general business which has now reduced it below the level of 1936 and has caused one of the worst collapses of the stock market in history.

There were those who strongly believed that under the existing and prospective conditions the railways should refuse to advance the wages of a large majority of their employees, and that, having done so, they should present fully to the public the facts and issues involved, hoping that public sentiment would exert a salutary influence upon whatever action might be taken by government to settle the controversy. Railway managements decided, however, that it was the part of expediency to make the best settlement they could get rather than take the risk of relying upon public sentiment to protect them from government action that might be more expensive.

Why the Business Recession?

The available facts suggest certain conclusions. (1) The major economic policies of the New Deal are a failure if their purpose has been to restore prosperity, because during four years of them recovery from the great depression was slower than it ever was from any previous depression, and such recovery as had occurred has now been followed by a sharp recession of business. (2) The recession now occurring is not the beginning of another major depression because, it was not preceded, as all major depressions have been, by an unprecedented expansion of construction, production and distribution resulting in excessive demands upon capital and credit. (3) The recession that is occurring is not entirely due to policies of the New Deal because, no doubt in conformity with these policies, but largely for their own reasons of supposed expediency, the major industries of the country have made advances in wages and prices greater than recent developments indicate were economically warranted.

If these conclusions are justifiable they indicate that the leaders of business have had a responsibility which they have not lived up to and a duty they have not performed. They have decried more or less in public government policies that they have considered unsound and contrary to the public welfare, but at the same time they have acquiesced in and carried out some of the most important of these policies in ways and to a degree that have helped cause a sharp recession of business that has become extremely costly to the industries that they manage, to the employees of these industries that are being thrown out of work and to the public.

The current recession can be arrested before it becomes much more serious. How soon it will be arrested, however, and how great and how long an increase in prosperity will thereafter occur will depend as much at least on the way the leaders of industry and transportation assume their responsibility and perform their duty as upon the economic policies of the government.

An Essential Distinction Between Rates and Fares

When the continuation of the "emergency" surcharges on freight rates was being argued before the Interstate Commerce Commission last winter, one or two of the Commissioners asked questions which indicated a belief that, reductions in passenger fares having stimulated traffic, similar reductions in freight rates might have the same effect. The sequel has not borne out this assumption; and now that revision in freight rates —and possibly passenger fares also—is again under discussion, it might be well to consider some of the fundamental economic considerations involved in rate revision.

Primarily, it should be borne in mind that there is a basic difference between passenger fares and freight rates. A passenger journey is a product of final consumption, whereas the haulage of freight is but one process in making a commodity available to the consumer. Thus it is that *lower fares will usually stimulate passenger traffic, whereas lower prices at the point of consumption are required to stimulate freight traffic,* and freight rates may affect such prices little if at all. For example, in August this year passenger revenues were some 6 per cent above those of August, 1936, whereas freight revenues were less than 1 per cent ahead of last year. But because of the elimination of the emergency surcharge in January, freight rates were lower in August this year than in August, 1936, whereas there was no change in basic passenger fares. The reason for the failure of freight traffic and revenues to maintain a healthy growth plainly, therefore, cannot be blamed on the rate level. However, the index number of wholesale prices of the Bureau of Labor Statistics has advanced approximately 10 per cent in the past year, and that increase indubitably explains the slowing down of consumption and the consequent failure of freight traffic to increase as passenger business has. In other words, *the decrease in freight rates had no effect in stimulating traffic*, because it was a great deal

An Informed Employee's Views of the Wage Question

[*Editor's Note.*—Included in the leading editorial of our October 16 issue was a letter from a railroad employee who was obviously misinformed about almost every essential phase of the economic side of the railroad industry. In heartening contrast to that communication, we publish below (with the writer's permission) a letter received from a locomotive engineer-fireman, in response to an inquiry as to occupation and interests which we make of all *Railway Age* subscribers. What an industry railroading would be if the predominant opinion of all the partners in it showed such consideration for the "other fellow's" needs! Here is the letter . . .]

HAMLET, N. C.

"Why do I read *Railway Age*? For two reasons. Because I like to keep abreast of new developments in locomotives and everything pertaining to railroading. I learn much by reading your advertising pages—every one is of interest. Since my small childhood locomotives have been my greatest interest and attraction. I am 47 years old, started firing when I was 20, and now at 47 I find myself still doing just about as much firing as running. But either line of this work is something that I love and can put my whole heart and soul into.

"I read *Railway Age* also because I like your editorial pages. They have been of special interest during the past few months since this argument over a wage increase has been under way. I like to have both sides of the question. And I agree with more of your editorials than you would imagine I do. The one in this week's magazine, 'Pay rise demand arose with union chiefs, not membership,' is particularly worth mentioning. I have already thought that same thing. If the railway managements would just let us keep our same working agreements and our same rates of pay, I believe the far greater number of us would be mighty well pleased. But I do say that I would love to see track laborers and others of their class given a raise. I had rather see those given a raise than have one myself. Personally, I regret exceedingly that this argument over a wage increase has ever come about. I want those who own railroad stock to make something out of their investment. They have a right to. And unless they make something, they cannot give me employment in this work that I love, nor can they pay me to work for them, thereby giving me a livelihood for myself and family. I appreciate my job for many reasons.

"The past three or four years I have not been a subscriber to *Railway Age,* but since renewing my subscription, some six months ago, I have declared I will never be without it again. If all railroad employees read it, we would as a whole be easier to deal with and handle in all matters having to do with wages and working agreements . . . because we would all come into a better understanding of these matters as seen by our employers . . . and we would all develop greater appreciation for our jobs as railroaders."

W. F. DILLARD,
Locomotive Fireman-Engineer, S. A. L.

more than cancelled out by a general increase in commodity prices.

Bearing in mind this distinction between freight and passenger traffic, it follows that an increase in freight rates would be far less likely to drive traffic away than would an increase in passenger fares. Assume a suit of clothes selling for $25 upon which the freight rate is now $1. Advance the freight rate 25 per cent and the suit of clothes will sell for $25.25—hardly enough to discourage a purchaser. But increase passenger fares 25 per cent and it is no mere quarter which the consumer will have to dig up to pay the bill—but rather, for example, $6.80 extra for a first class ticket between New York and Chicago. In other words, the level of passenger fares has a direct bearing on the volume of traffic, whereas it is the selling price of commodities, and not freight rates, which influences the volume of freight traffic.

With traffic where competition of other agencies of transportation is important, of course, an increase of a few cents even may cause the loss of business—but, generally speaking, where such competition is not an important factor, a moderate increase in rates should have very little adverse effect on traffic volume. By contrast, an increase in passenger fares would certainly be reflected at once in a decline in traffic—although not enough, possibly, to cancel out the benefit of the higher rates.

There seems to be some opinion to the effect that, if given a choice of equal net revenues from heavy passenger business at low rates and lighter business at higher rates, the railroads should aim at the second alternative, thereby saving the trouble incident to operating additional cars and trains. We do not agree with this view. The railroads are so deeply involved in government that it is essential to their well-being that a large part of the voting public is constantly aware of their dependence on railroad service. There is no way of cultivating this attitude so effective as having the public rely on train service for travel. There is the further effect of improved employee morale when traffic is expanding, and the economic soundness of reducing rates to promote an expanding market—the surest way of increasing the national income and distributing that increase equitably.

Increased rates are indispensable to the railroads if they are to carry on under the unwarranted load of added labor costs—but we trust that they may be applied with a fine sense of discrimination as to "what the traffic will bear." And, in particular, we hope that the growing public friendliness and appreciation of railroad progress inspired by lower fares and improved passenger service may not be jeopardized by an arbitrary percentage increase in passenger fares, unless mature consideration points to such action as unavoidable.

The Danger in Overinflated Wages

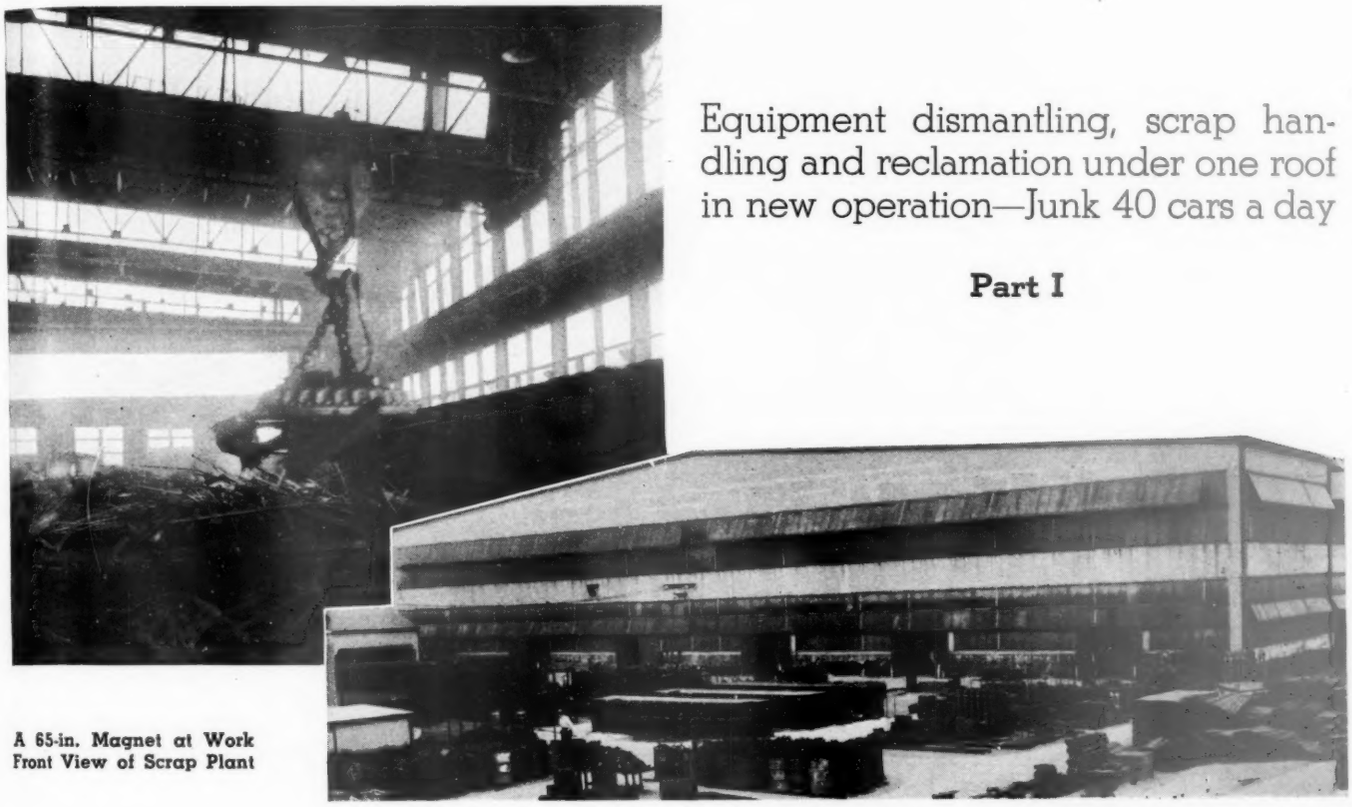
The splendid territorial divisions of production, with fine local specialization of function, characteristic of the United States and attained principally through free trade among forty-eight States and almost three million square miles of land area, and by means of the cheapest and most efficient transportation in the world, may not fully persist if it becomes necessary repeatedly to augment rates, whether to offset wage increases or for other purposes. A condition is at least conceivable in which railroad expenses will have become so great, through increased wages, that the railroads could be solvent neither with the rates they have nor any increased ones, and where revenues at current rates would fall below expenses and any increases would still further reduce the net income. Such a contingency may not be imminent but the possibility ought to be envisaged, for it may not be too remote for cautious consideration.

Nor is it to be forgotten that railroad wages are paid out of railroad receipts and that railroad receipts are supplied, not always by the direct purchasers of railroad services, but, eventually, by the ultimate consumers of goods which are transported and into the costs of production of which payments for railroad services enter. For every infant in New York City who consumes milk, there is a transportation charge that affects materially the local price and also makes its contribution to wages paid in transportation. No artisan or clerical employee in New York City, none anywhere in the land, fails to pay his portion of the aggregate transportation bill of the country and it is this transportation bill that is directly swollen by every addition to railroad wages. Yet how many of these clerical employees or artisans have earnings as large and as regular as railroad conductors and engineers, or even as most of the large number whose wages have just been increased by the not inconsiderable rate of forty-four cents per day? Under a perfect adjustment, all labor would receive a definite amount for the effort required plus suitable differentials for skill, risk of injury, and perhaps for especial hardship of unavoidable conditions. Under such a perfect adjustment the wages of all employees on railroad trains would be high. How high? They are high now. Is it not reasonable and desirable at once to inquire whether they are not actually higher than such a criterion could justify and, if they are not, how much higher they could go without exceeding that fair limit? Nothing could be gained, it is certain, by making out of railroad labor a special class, favored at the expense of clerks and artisans employed in other industries.

And this leads to another observation. Combinations between labor and employers of labor, under which wages are increased and the burdens passed along to the consuming public, are, at times, quite practicable. There have been unmistakable evidences of such practices, on a relatively small scale, in the United States. It is doubtful whether anything of this sort could be achieved upon the immense scale of the American railroad industry, but the effort, conscious or as a compelled reaction although without recognized intention, is not unthinkable. Railroad managements that have bowed to the extremes of regulation and accepted them as inevitable, on the side of revenues and methods, might, it is conceivable, bow to the organized forces of labor, supplemented by political favor and the administration of partial statutes, and recognize no alternative to yielding extravagant concessions to their employees and seeking to have the traveling public, finally the consumers, underwrite the bill.

—From the Commercial and Financial Chronicle

Huge Scrap Plant Opened On New York Central



A 65-in. Magnet at Work
Front View of Scrap Plant

Equipment dismantling, scrap handling and reclamation under one roof in new operation—Junk 40 cars a day

Part I

THE largest railway iron and steel scrap handling operation ever attempted under one roof, and one of the two largest railroad scrap plants in the country, is now in full operation on the New York Central, with the conversion of a 243-ft. by 431-ft. steel car shop at Ashtabula, Ohio, for use in scrap handling, reclamation and equipment dismantling.

The plant was opened on April 1 under the supervision of the purchases and stores department and is equipped to tear down all retired rolling stock and to handle all mixed iron and steel scrap, and to perform centralized reclamation work on old material. The operation supersedes car and locomotive wrecking previously performed by the mechanical department at Ashtabula, Ohio, Detroit and Jackson, Mich., and Indianapolis, Ind., and large scale scrap handling and reclamation work and locomotive dismantling previously performed at Cleveland by the purchases and stores organization.

250,000 Tons A Year

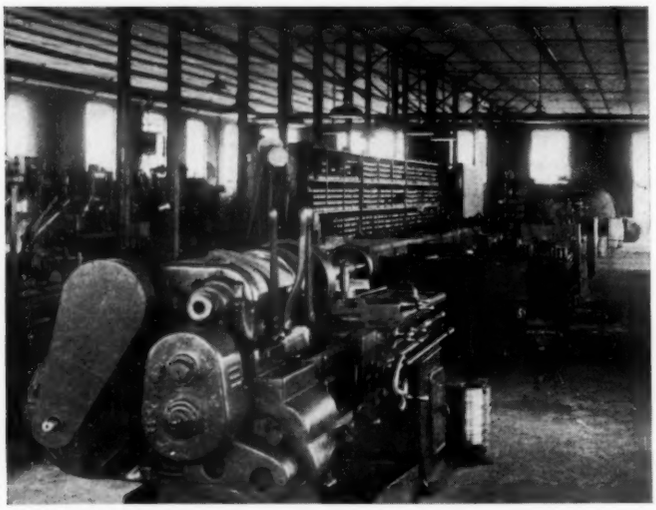
The plant employs almost 400 men, has 5 traveling cranes 80 ft. long with 65-in. magnets, 5 locomotive cranes and 24-hr. switch engine service, and is tearing down freight cars at the rate of 40 per day. Over 600 cars of wheels, scrap and reclaimed material are produced per month, or about 250,000 tons annually, and approximately $4,000,000 of scrap will be sold annually. Material salvaged from scrap would, if purchased new, cost the railroad several millions of dollars per year.

The Ashtabula project combines car dismantling for the system with the scrap handling and reclamation work previously performed at Cleveland on land and with labor of the McKinney Steel Company. In the beginning, the arrangement with the steel company was highly satisfactory, both with respect to the cost of handling scrap and its sale, the scrap being largely converted into heavy melting steel for the steel company's own furnaces. The use of the property by the railroad was limited, however, and as the need of expanding the work grew and as changes in the management of the steel company and changes in scrap markets occurred, the arrangement with the steel company was discontinued by mutual consent.

Building Two Blocks Long

Ashtabula offered unlimited facilities. The large steel car shop had been built as recently as 1914 on a 50-acre tract of land otherwise unoccupied, and was partially restored to use in 1932 by the mechanical department for dismantling cars. Ashtabula is also a large lake shipping point on the main line of the railroad, only 50 miles east of Cleveland, and aside from being easily accessible to the scrap producing and scrap selling centers of Cleveland and Lorain, Ohio, to the west, and Buffalo to the east, is the railroad's gateway to the Youngstown, Ohio, and Pittsburgh, Pa., scrap consuming centers to the south. It is a community of 23,000 population with which the railroad has much in common, and is a favorable location for labor.

Chief among the facilities is the 243-ft. by 431-ft. main



A Partial View in the New Shop—Machines Direct-Connected, Motor-Driven

shop in which the dismantling, scrap handling and heavy repair work are now performed. To this was added a new one-story shop of brick and steel, 53 ft. wide and 141 ft. long, for repairing air brake material, electrical items, fittings, valves, etc. Next to this, a similar building is undergoing construction for repairing car side frames and for handling non-ferrous metals. The new construction also includes a shipping dock 20 ft. wide and 220 ft. long, built car door high and paved with concrete for loading cars of new and repaired materials. This dock has concrete inclines at both ends which connect with about 1,800 linear feet of concrete runways, 8 ft. to 20 ft. wide, which are laid in front of the main shop and the machine shop and around areas which have been leveled off for storage. The runways all have rounded corners for truck operation.

Other buildings include a car journal reconditioning shed near the front end of the main shop and one-story wood buildings along the east side of the shop for the plant storekeeper and for use as lunch rooms, locker rooms, etc. Opposite the locker rooms is a powerhouse, containing a generator of electricity for cranes, two motor-driven air compressors and three boilers for steam heat. North of the shop is a scale house, also a gas house with six acetylene generators of 300 cu. ft. capacity each, and two manifolds for distributing the gas from 225 to 300 cylinders of oxygen per day. The trackage totals 3 miles and is being extended to form three stub tracks on newly graded land in front of the main shop for storing heavy materials and to improve the facilities north and east of the shop for dismantling operations and for the storing of cars of scrap awaiting sorting and preparation.

An office building has been erected near the front of the shop and the entrance has been improved by building a new road to the main highway, and by grading the ground for parking cars and by landscaping around the office.

One Big Roof

The main shop is a structural steel building in good repair without inside walls or other obstructions to view, except two rows of roof columns on 18 ft. 6 in. centers which divide the building lengthwise into 3 floors, each 80 ft. wide and 431 ft. long. Steel trusses on top of the columns support a monitor-type roof which rises from an elevation of about 42 ft. at the eaves to 51 ft. at the center. The monitors are fitted on each side with continuous panels of steel sash 6 ft. high, and the end and side walls of the building consist chiefly of steel window panes.

There are two bridge cranes of 12½ tons capacity in the east bay where the scrap is handled; one crane in the center bay where locomotives are dismantled; and two cranes of the same kind in the west bay where cars are dismantled. These cranes are each 80 ft. long and are suspended about 25 ft. above the ground. Each has a bridge travel of 350 ft. per min., a trolley travel of 174 ft. per min., and a hoisting speed of 56 ft. per min., and each crane is equipped with a 65-in. magnet.

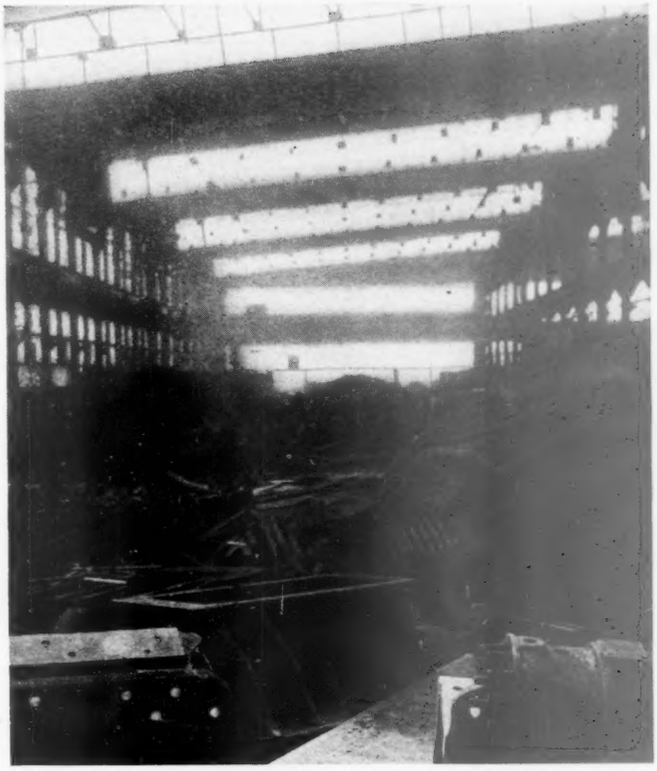
In the east bay where scrap is sorted, all tracks have been removed, with the exception of one track next to the wall and another next to the columns on the opposite side. In the west bay where cars are dismantled, there are three tracks—one next to the inside columns, one centrally located, and a third track next to the side wall. In the central bay, three tracks extend about half the length of the building, one lying next to the columns

Looking South Over the New Storage Yard—Loading Dock at Left

on one side, the second track lying next to the columns on the other side, and the third track extending down the center for use in demolishing locomotives. The forward half of this bay is used for a blacksmith shop. There are seven alligator shears in the building—two large shears and two small shears on the scrap handling floor, two large shears on the locomotive dismantling floor and one large shear on the car dismantling floor, while the blacksmith shop is equipped with 59 furnaces, direct motor-driven machines, etc., as follows:

Machines, Forges, Etc., in the Blacksmith Shop

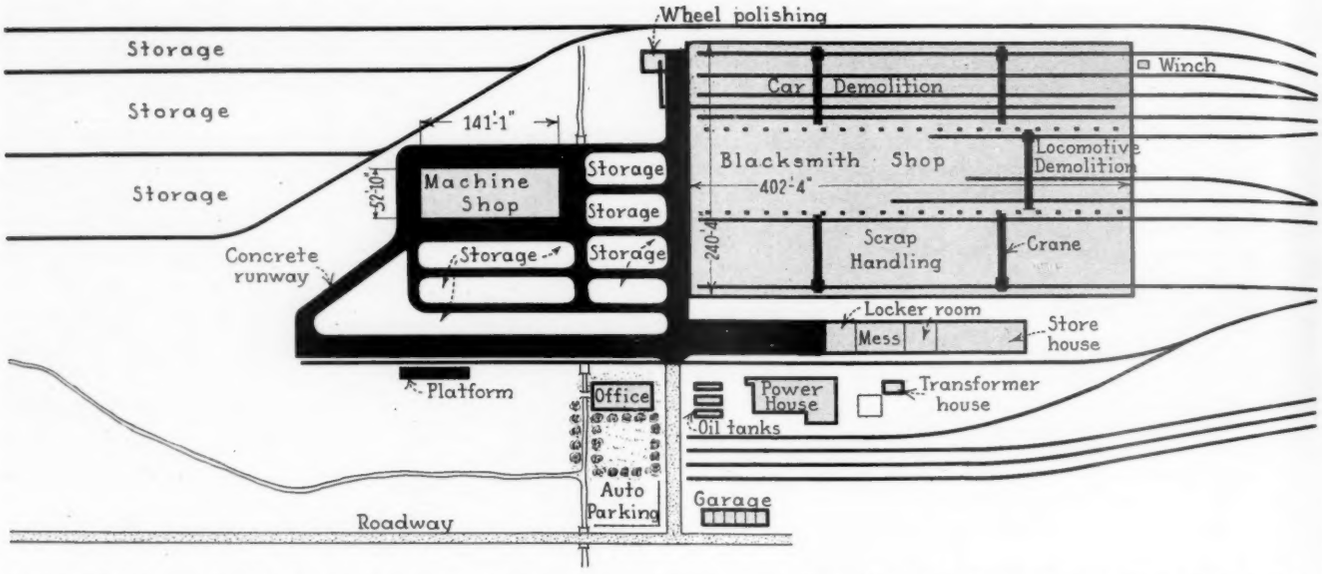
1 punch for shearing coupler yokes from couplers
1 punch for converting channels for further use as spring plank
1 bench for repairing side bearings
1 400-amp. electric welder for building up coupler butts
1 grinder for converting No. 2 Type D coupler lifters to No. 3 lifters
1 oil burner for heating journal box lids
1 shop-made air press for straightening journal box lids
1 air-operated hammer for straightening rods and bolts cold
1 air-operated press for straightening brake wheels cold
1 brake shoe key furnace
1 machine for forming brake shoe keys
2 stamping machines for making washers
1 double-end heavy-duty shear for miscellaneous work
6 steel tables for oxy-acetylene welding
2 open-type coke furnaces, with blowers, for heating couplers, etc.
1 air-operated press for straightening couplers
1 oil furnace for heating coupler yokes and miscellaneous materials
1 steam hammer converted to air operation for straightening and drawing
1 power grinding wheel for miscellaneous grinding
1 small air press for forming small forgings
1 small oil furnace for lever lifters and miscellaneous materials
1 small air-operated straightening press
3 blacksmith forges
1 pneumatic hammer for drawing tools
1 emery wheel
1 rivet punch
1 Bradley hammer
1 air bumper for straightening rail anchors cold
1 vertical air press for brake connections
2 oil furnaces for welding
1 air post hammer
1 No. 6 shear for rods and bar stock



Under the "Big Top" in the Scrap Handling Plant

1 radial drill press for brake levers and miscellaneous drilling up to 3½ in.
1 double-end air press for straightening round material
1 air press for reforming track spikes hot
1 double-end punch and shear for door tracks and other small material
1 2-chamber oil furnace for straightening
1 single-chamber oil furnace for heating brake beam rods, channels, etc.
1 air-operated bull dozer for straightening brake beam channels
1 brake beam dissecting table, with 1 air-operated cutter
1 two-head threader for truss rods
1 brake beam assembling machine, with two air-operated motors
1 air press to straighten brake beam channels cold
1 brake beam load tester

New Machine Shop in Foreground—New Storage Yard in Background



A Plan of the Scrap Plant Showing Principal Buildings—Concrete Runways and Platforms Black—Correct Dimensions of Main Shop 245 ft. by 431 ft.

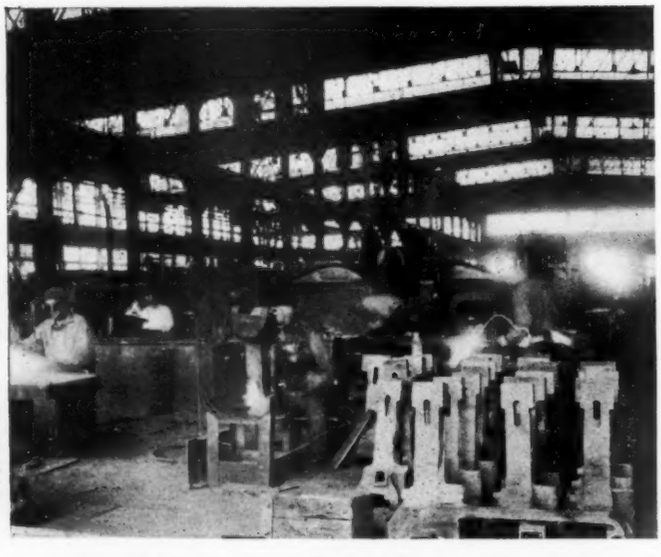
1 brake beam deflection tester
1 cold saw for brake beam channels
1 small drill press for cotter pin holes
1 10-ft. gate shear for heavy sheets
1 brake beam vat and drain pan

59

The new machine shop, built for light work, is about 120 ft. in front of the main shop and was constructed by building a brick wall around steel frames of portable buildings moved from Cleveland, by applying a corrugated steel roof, installing a flat ceiling of insulating board and paving the floor with concrete after installing underground drains, conduit and air lines. This building is equipped with 44-air operated or direct motor-driven tolls and machines, as follows:

Machine Shop Equipment

1 universal grinder for sharpening dies
1 universal grinder for miscellaneous work
1 two-headed machine for threading pipe nipples
2 three-headed machines for threading pipe nipples
1 roller pipe cutter



The Blacksmith Floor is 80 ft. Wide and 200 ft. Long

1 air press for straightening pipe cold
1 grinder for sharpening pipe dies
1 air motor for unscrewing angle cock caps
1 air-operated press for shearing rivets off angle cocks
1 air-operated press for straightening angle cock handles
1 air hammer for riveting locking devices
1 8-spindle vertical angle cock grinder
1 turret lathe for rebushing angle cocks
1 grinder for air brake valves
1 punch for shearing rivets
1 grinder for repairing globe and angle valves
1 hand-operated valve refacer
1 double-end buffer for polishing brass valve bodies and parts
1 8-in. lathe
1 6-in. lathe
1 power hack saw
1 washing vat
1 single-spindle drill press for signal material
1 drill grinder
2 24-in. shapers for journal wedges
1 4-ft. lathe for miscellaneous work
1 metal tool bench equipped with vises
1 vat for painting signal material
1 electric drill
1 small shaper for refacing journal wedges
1 journal bearing broaching machine
1 single-head threader for signal pipe
1 drill press for bolts and signal pipe
1 shear for bolts up to 1 in. in diameter
1 Bradley hammer for straightening bolts cold
2 3-headed bolt threaders
1 bench die grinder
1 milling machine for tools and die work
1 milling machine for facing ends of journal bearing wedges
1 tool bench
1 emery wheel

44

In addition to this equipment, the plant has 2 electric crane trucks, 2 tractors, 5 wagon-box-size trailers, 30 small trailers; and the 5 locomotive cranes at the plant are each wired for handling 42-in. magnets. Besides the alligator shears in the main shop, there are two similar machines in the north end of the yard.

375 Men

The authorized organization for the plant operation comprises 366 men as follows:

Looking North Toward Wood Car Stripping and Burning Yard—Acetylene Plant at Left

For handling scrap and dismantling locomotives:

1 scrap yard foreman
1 inspector
5 foremen
6 shearmen
18 burners
6 electrical crane operators
2 gas house attendants
50 laborers

For dismantling cars:

1 foreman
2 gang-foremen
5 car men inspectors
2 hoist operators
5 electric crane operators
2 crane helpers
3 shearmen
2 motor crane operators
2 gas house attendants
12 laborers
80 contract dismantlers

For shop operation:

1 general foreman
1 machine shop foreman
9 machinists
3 sheet metal workers
2 car men
2 electricians
15 machinists helpers
2 stationary engineers
3 stationary foremen
1 blacksmith foreman
10 blacksmiths
7 welders
1 car man
14 blacksmith helpers
2 hammer operators
1 foreman
7 car men
14 helpers

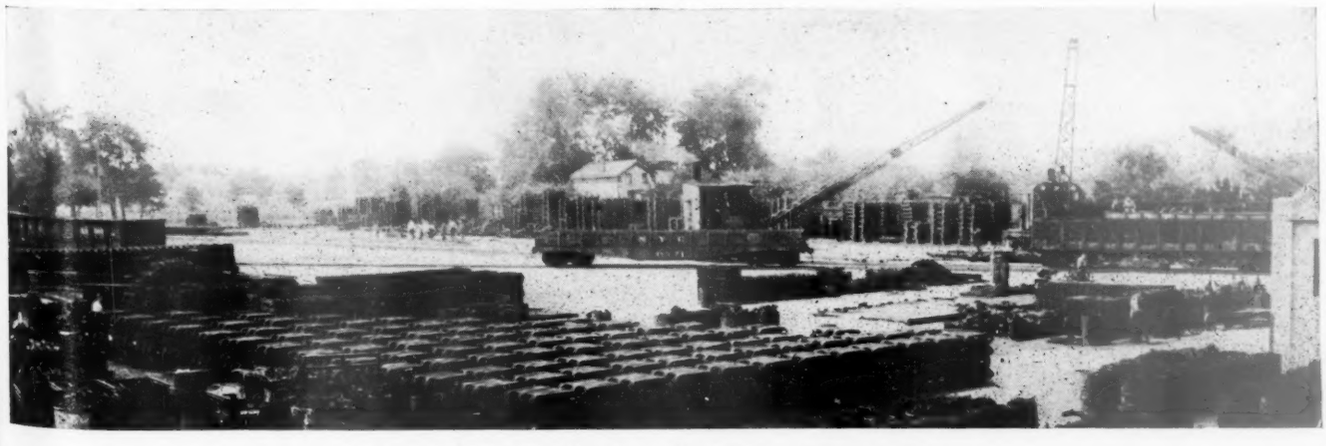
For stores and material handling:

1 storekeeper
1 foreman
1 gang foreman
2 shipping foremen
1 clerk
5 material men
2 tractor operators
2 hoist operators
2 crane helpers
41 laborers
1 watchman

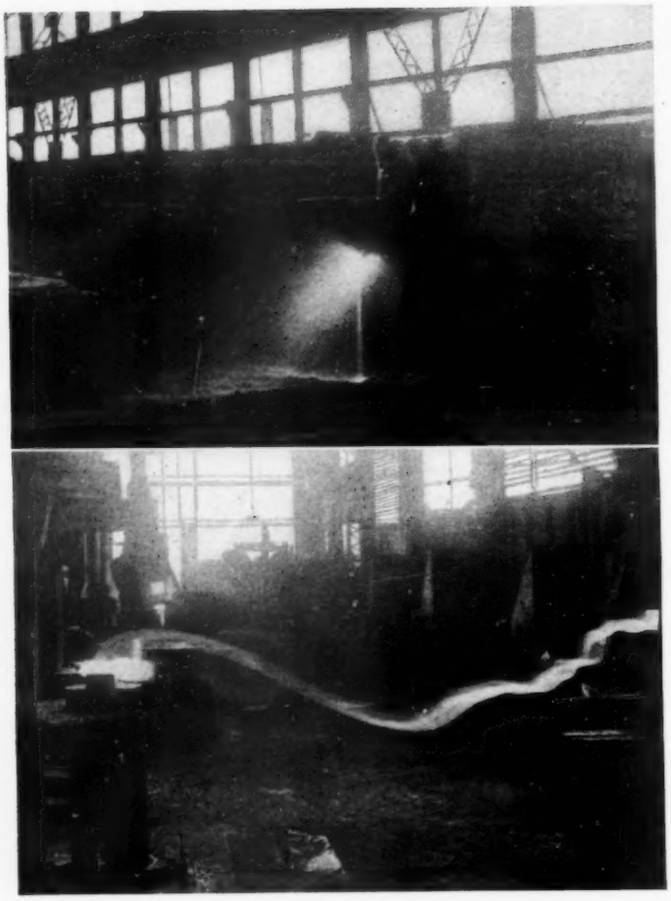
The organization also includes an office force at Ashtabula of one chief clerk and six clerks reporting to the plant superintendent, and an office force in Cleveland of one clerk and one stenographer handling scrap sales. Both the organizations at Ashtabula and Cleveland report to a manager of scrap and reclamation who, in turn, reports jointly to the general supervisor of stores and to the vice-president of purchases and stores.

Sort and Prepare All Mixed Scrap

Two classes of labor are employed—railroad employees and contract labor. The latter perform car dismantling work under lump sum agreements under which the railroad supplies the materials and tools and pays the men in accordance with the provisions of the contracts. The entire material handling force, however, is recruited from



Locomotive Cranes Handling Side Frames From Old Cars



Upper—Cutting Up a Steel Car in the Big Shop. Lower—From Forge to Hammer in the Blacksmith Shop

shop and mechanical department forces, and their assignments are governed by the non-operating employee regulations and agreements.

The plant is one of the few instances, if not the only instance, were railroad scrap is handled almost completely under a roof. This arrangement avoids interruptions caused by inclement weather. The tonnage includes all roadway and shop scrap, with the exception of unmixed cars of wheels and axles, borings, rail and similar materials which require no sorting or further handling before disposition, such scrap being shipped direct from its point of origin.

The scrap, after passing over the track scales, is switched into the plant, eight cars at a time. One track only is used for unloading, and the opposite track is used for loading. The force is divided into two gangs—one working in the north half of the scrap floor and the other in the south half. Each gang has one of the two bridge cranes and two shears. As soon as the cars are spotted on the unloading track, the scrap is unloaded on the ground by magnet, and the scrap of different kinds and the materials recovered from the scrap are sorted in separate piles. Scrap ready for market when sorted is loaded by magnet into the proper cars on the loading track. Shearing scrap is carried by magnet to the shears. Large pieces of material are cut to charging box size where they lie before loading. Materials subject to reclamation are carried by the magnet to one point and sorted into containers. The men work three shifts, and the work is organized to prevent accumulations. Some scrap must be held until a carload is available, but most of the scrap is cleaned up each day. The floor is entirely free from bins and other obstructions to the handling of scrap with flexibility and dispatch.

Other details, including a description of the car dismantling and reclamation methods, will be presented in a later issue.

I.C.C. Practitioners Meet at St. Louis

MORE stringent requirements, more uniform procedure for practice before the Interstate Commerce Commission and political control of that commission as implied in the plan to reorganize government departments were the principal subjects considered at the eighth annual meeting of the Association of Practitioners Before the Interstate Commerce Commission at St. Louis, Mo., on October 14 and 15. The program of the meeting, over which President Allan P. Matthew presided, also included addresses by J. G. Scott, chief of the Section of Law and Enforcement of the Bureau of Motor Carriers of the Interstate Commerce Commission; Clyde B. Aitchison, member of the Interstate Commerce Commission; Charles M. Hay, general counsel for the Association of Railway Labor Executives; and H. H. Larimore, general attorney of the Missouri Pacific.

Officers elected for the ensuing year are: President, H. D. Driscoll, Tulsa, Okla.; vice-president for official classification territory, John J. Danhof, general counsel of the New York Central, Detroit, Mich.; vice-president for southern classification territory, Thomas M. True, Jacksonville, Fla.; vice-president for western classification territory, Elmer Westlake, San Francisco, Cal.; chairman of the executive committee, Clarence A. Miller, general counsel of the American Short Line Railroad Association, Washington; secretary, Milton P. Bauman, New York; and treasurer, Charles E. Bell, Washington.

Reorganization of governmental departments was given consideration in the president's address and in the report of a special committee. Both paid tribute to the high standard of the Commission's past performance and called attention to the effect of political interference on future actions of the Commission if members of that body should be appointed by Congress or a president and recommended that members continue to oppose any proposals which might jeopardize continued rendition of justice by the Commission.

The establishment of qualifications for practitioners before the Interstate Commerce Commission, as advocated by Congress, and in keeping with the standards established by some state commissions which restrict practice to those with legal training, was discussed, with opinion divided. Uniform procedure also was discussed and a special committee was appointed to investigate the subject.

A summary of the underlying factors of practice and procedure was given in an address by Mr. Aitchison on A Unified System of Federal Administration Practice. He recommended that practitioners themselves improve their training and practice instead of inviting others to attempt correction. He also stated the whole system of federal administration law would be strengthened if it were more homogeneous. He said in part:

"The movement in Congress for limitation of the practice before administrative agencies to those who have been admitted to practice law in the courts, calls for a self-appraisal of the weaknesses as well as of the strength of the very liberal system which has hitherto applied before the administrative bodies. That there is need for higher standards of professional competency and conduct is attested by the comparatively recent creation of rolls

of registered practitioners by the Interstate Commerce Commission and other federal regulatory bodies, and by the existence of an association such as this, with betterment of standards as a primary purpose.

"Are those standards high enough; and are the methods employed to secure their observance adequate? The answer must be a pragmatical one. We have a condition, or rather a group of conditions, with many dissimilarities to deal with. We should not be arbitrary in determining and enforcing the standards—it would do no good to attempt arbitrary dealing with the matter, because a reasonable solution is necessary, and because a higher power, whether it be the courts or the legislature, will not let an arbitrary solution stand.

"But under all this outside agitation is a perfectly valid, even highly meritorious purpose, which is that the men who practice before these federal administrative bodies shall be of at least as high character and as well trained as those licensed to appear in the courts, with ethical standards equally high, and subject to the same discipline. The public interest is paramount, if sometimes put in the background by discussions as to whether this or that act amounts to practicing law, and as to the inherent constitutional powers of the judiciary.

"The point of this particular discussion is that it is possible to cut the ground from all this agitation by such internal action as will make it clear that the administrative practitioners are (considering the nature of their tasks) as adequately trained, as of high a degree of moral and professional uprightness, as those whom the courts have called to their bars. To the extent that we all fall short of that test and make no correction ourselves, we must be considered as inviting others to attempt correction according to their own methods, in the light of a knowledge of the situation which is not as clear as ours.

"Since federal administrative practice before these agencies has grown and been assimilated in character, due to constitutional requirements laying down common prerequisites for valid administrative action and for judicial review, we would seriously question whether the whole problem of the practitioner should not be dealt with on the basis of the creation of a federal administrative bar, just as we now have a special judicial bar, and in other countries there exists a parliamentary bar.

"This leads quite naturally to a second line of criticism to which federal administrative agencies are subject, namely, the diversity of practice and procedure, and the supposed failure to achieve that simplicity and freedom from technical pitfalls which are the theoretical attributes of commission practice. Close inspection will doubtless show that much of the support for the rather reckless scheme for so-called administrative courts and for the present modified form of that plan, lately under discussion at the session of the American Bar Association, is attributable to vagaries and inconsistencies in practice as between these different federal agencies, and to the marked differences in their psychological approach to quasi-judicial tasks. It is little wonder that elaborate systems of correctives are proposed and plausibly urged, contrived to meet some particular situation with which the draftsman is familiar, and that the proponents of these plans cannot understand why they will not operate as panaceas in all situations.

"When we get the results of the studies now being made as to proposals for reorganization and reassortment of the various federal departments and agencies, it will doubtless be found that conflicts in methods and procedure, and lack of uniformity in enforcing policies of the law bulk large in the minds of those who favor new and drastic rearrangements.

"The whole system of federal administrative law would be strengthened if it were more homogeneous. We must not overlook the fact that now a conflict is going on quietly between the older solidly established system of law and equity and the new system of administrative process which is not unlike the historic conflict out of which the equity system evolved.

"The federal judicial practice is now in process of an overhauling, and simplification of practices, as well as unification in the different jurisdictions, will be the result. When the rules are finally authoritatively announced for the federal courts, each of the federal administrative bodies will perforce conform its practice thereto, or else it will endure the humiliation of condemnation of its orders because of procedural defects which were easily avoidable; or where the statutes do not require such compliance, public opinion will force acceptance of the best of the new judicial rules. The administrative bodies cannot afford to be less liberal in their procedure than the courts, and they know it."

Mr. Hay, in his address, pictured a more complex life, necessitating more laws, bureaus and commissions as mediums of government. The wise thing to do, he said, is not to oppose these developments but to accept the tendency and endeavor through the exercise of intelligence to keep it from running amuck. Only through the exercise of intelligence, he continued, can bureaus and commissions be made effective without loss of liberty, without oppression and a middle lane between dictatorship and unrestrained license be established.

Mr. Scott summarized the progress made in the last two years in enforcing the provisions of the Motor Carrier Act. More than 85,000 separate applications for operating authority were filed under the "grandfather" clauses of the act and 4,307 new applications have been filed since. With these facts there are possibly as many as 100,000 separate entities subject to regulation as carriers for hire and possibly 750,000 more private carriers subject to limited regulation in such matters as safety. Up to October 1, 110,485 tariffs and supplements of common carriers and 51,849 schedules, supplements and contracts of contract carriers have been filed. To date, 22,280 field investigations and "grandfather" applications have been completed and action has been taken in 15,925 cases. There has been a total of 2,441 hearings on applications of all kinds and at the present time the rate is 250 hearings and 400 applications for hearings a month.

"A fair appraisal of the first phase of the administration of the Motor Carrier Act," he said, "discloses these distinguishing features: First, the exploration of the facts, in specific matters and generally, in order to determine intelligently what could or should be done in the regulation of the motor carrier industry under federal law. Second, education and information, primarily to carriers but also in lesser degree to shippers, those who practice before the Commission and the public generally. Third, the building of a sound and solid foundation upon which successful and effective future administration may be based. Fourth, the creation of a very satisfactory cooperative relation between the Commission on the one hand and carriers, shippers, state authorities and practitioners upon the other.

"As to what the next phase of the administration of the Motor Carrier Act shall be depends upon many imponderables. One of these is whether there is to be a clear and generally accepted conception of the purpose and function of modern regulation. Fifty years ago that purpose was to protect the public against the evils resulting from insufficient competition—the semi-monopolies of the nineteenth century. Today it is mainly to relieve against the evils of too much competition."

Burgess Air-Delivery System Tested

A.A.R. Test Report shows exceptionally favorable temperature distribution and air movement in air-conditioned cars

DURING the summer of 1936 the Division of Equipment Research,* Association of American Railroads, conducted tests on the methods of air delivery then in common use on air-conditioned railroad passenger cars, including the inside center duct, double outside duct, single outside duct, center bulkhead and double-end bulkhead.

The tests included the gathering of sufficient information on temperature distribution and air movement to rank these methods of air delivery according to their ability to maintain the following desirable conditions: A minimum difference in temperature between any two positions in a car at any given level; a minimum difference in temperature between any two levels in a car at any given position; a low and uniform air movement.

Since the completion of the foregoing tests, the Burgess Battery Company, Madison, Wis., has offered a new method of distribution known as the Multi-Vent, by which the conditioned air is discharged by the cooling coil fan into a clerestory plenum chamber. From the plenum chamber the air filters through two panels; the upper or controlling panel has a definite number of ¾-in. circular openings, and the lower or distributing panel has approximately two thousand $\frac{3}{32}$-in. circular openings per sq. ft. of surface area. Through the numerous small openings throughout the ceiling conditioned air enters the car.

The Division of Equipment Research has followed the development of this method of air distribution from the first trial installation in a Chicago & North Western wooden coach to the present installations in cars now in service. At the conclusion of the experiments in the trial coach, at which time the manufacturer and others felt that the general theory underlying this method of air distribution was understood, the product was offered to the railroads. In the first few practical installations, however, much additional information was obtained which resulted in changing the original method of apportioning definite quantities of air to various parts of the car.

The present report covers tests that the Division has made of several Multi-Vent installations, as well as a summary of the results of the tests of air movement and temperature distribution obtained in 1936. The latter results are included for comparative purposes.

The tests of C. & N. W. Coach 3208 show that more favorable temperature distribution and air movement may be obtained by the Multi-Vent panels than by any of the other types of air distribution tested by the Division of Equipment Research.

In order to obtain satisfactory results, the plenum chamber must have a large cross-sectional area. In

* Now the Division of Engineering Research, Association of American Railroads.

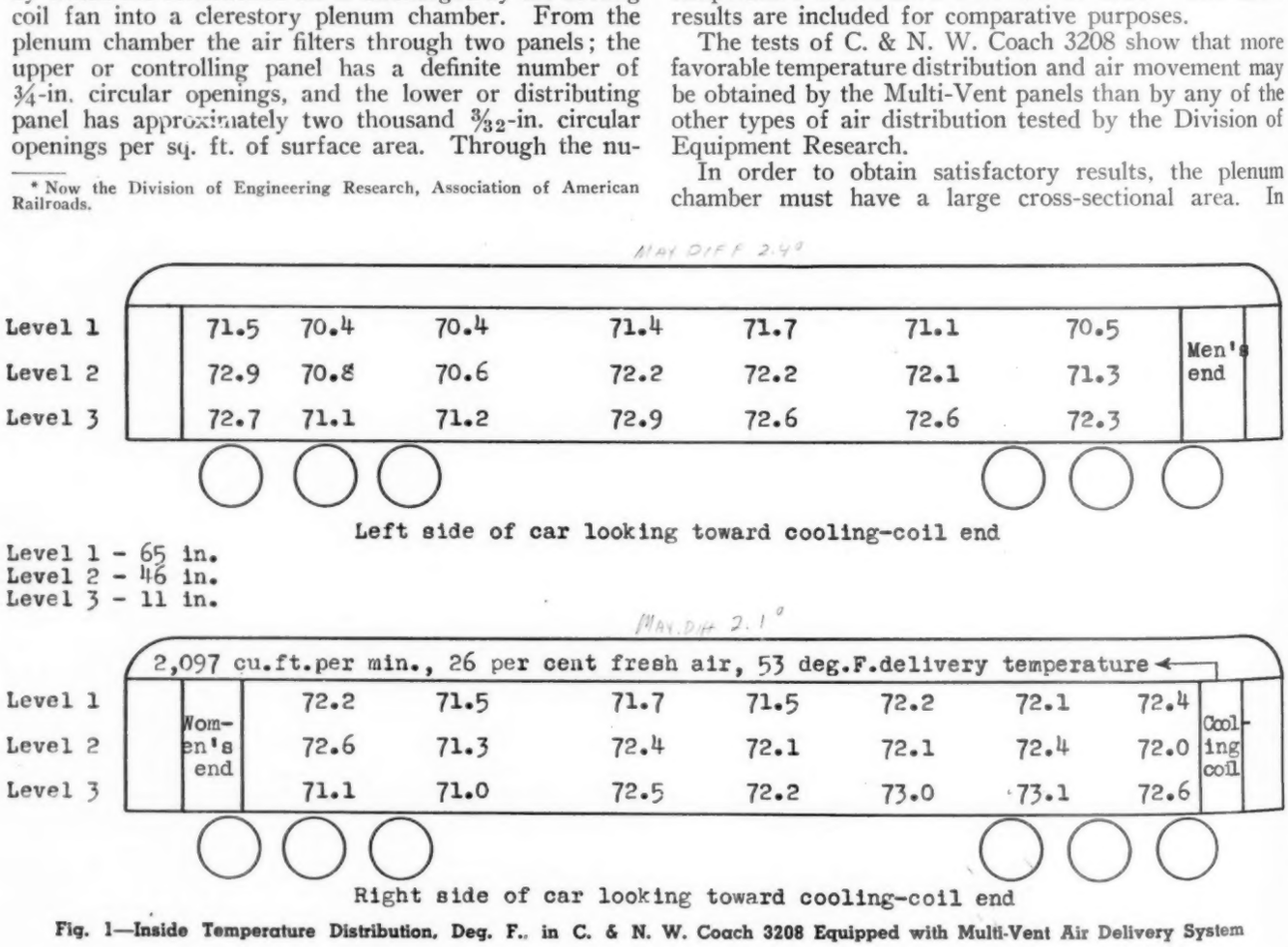

MAX DIFF 2.4°
Level 1 71.5 70.4 70.4 71.4 71.7 71.1 70.5
Level 2 72.9 70.8 70.6 72.2 72.2 72.1 71.3
Level 3 72.7 71.1 71.2 72.9 72.6 72.6 72.3
Men's end
Left side of car looking toward cooling-coil end
Level 1 - 65 in.
Level 2 - 46 in.
Level 3 - 11 in.
MAX. DIFF 2.1°
2,097 cu.ft.per min., 26 per cent fresh air, 53 deg.F.delivery temperature
Level 1 72.2 71.5 71.7 71.5 72.2 72.1 72.4
Level 2 72.6 71.3 72.4 72.1 72.1 72.4 72.0
Level 3 71.1 71.0 72.5 72.2 73.0 73.1 72.6
Women's end
Cooling coil
Right side of car looking toward cooling-coil end

Fig. 1—Inside Temperature Distribution, Deg. F., in C. & N. W. Coach 3208 Equipped with Multi-Vent Air Delivery System

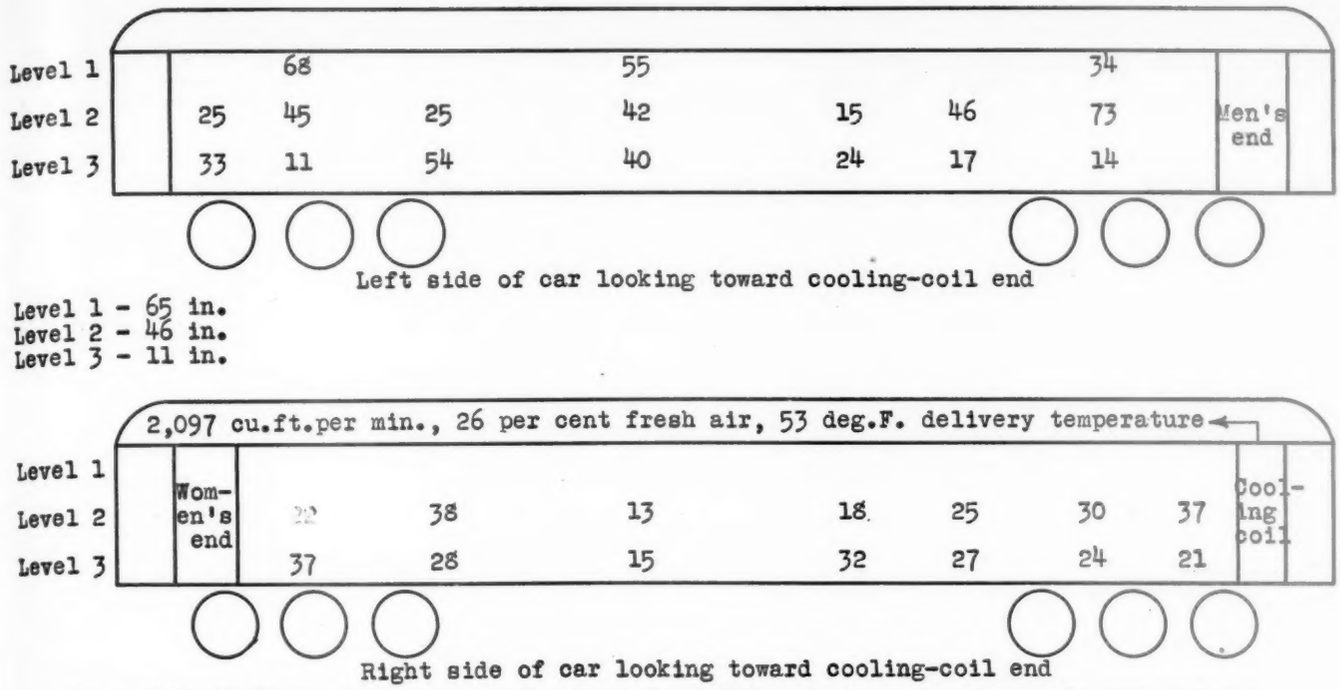


Fig. 2—Inside Air Movement, Ft. Per Min., in C. & N. W. Coach 3208, Equipped with the Multi-Vent Air Delivery System

Coach 3208 the area of the plenum chamber was of such size that the velocity of the conditioned air in the chamber was about 580 ft. per min. For satisfactory results this velocity should not be greatly exceeded. The manufacturer recommends a velocity not greater than 700 ft. per min., and preferably 500 ft. per min.

With accurate information as to the quantity of air to be handled, the cross-sectional area of the plenum chamber, the length of the car, and the air velocity at the fan outlet, it is possible to design a panel which will require very little adjustment. By adjustment is meant the change in the number of ¾-in. holes in the controlling panels. With some overhead cooling coils, high fan outlet velocities are unavoidable. In those cars tested where satisfactory performance was obtained, high velocities were not encountered. When panels are properly adjusted, a smoke bomb clearly shows that the cooled air settles vertically, in a uniform blanket over the entire car.

Approximately 100 cars will be equipped during 1937 with the Multi-Vent method. As additional installations are made, more information concerning this type of air distribution will undoubtedly be obtained.

As with any other type of air distribution, trouble may be caused by the collection of dirt. The Multi-Vent panels have been in service such a short time that meager information is available concerning dirt collection. Dirty spots, however, have appeared on the ceiling at points of localized high velocities.

Present indications are that the cost of the Multi-Vent method of air distribution will be somewhat higher than the cost of the inside center duct method.

How the Tests Were Made

Tests of the Multi-Vent method of air delivery were made on the following cars: C. & N. W. Coach 533, at the Burgess laboratory in Madison, Wis.; C. & N. W. Coach 7309, at the C. & N. W. shops in Chicago; C. & N. W. Coach 3208, at the C. & N. W. shops in Chicago.

Table I.—Comparison of Temperature Distribution in 15 Air-Conditioned Cars Equipped with Six Types of Air Delivery*

Type of air-delivery system	Number of outlet grilles	Temperature differences in degrees: Between positions in car, At 11-in. height	At 46-in. height	At 65-in. height	Between warmest and coolest positions in car	Between the three heights at the location with the maximum difference	Between average temperatures at the three heights
Burgess Multi-Vent	†	2.1	2.3	2.0	2.6	1.5	0.7
Inside center duct	14	7.6	6.9	6.7	8.3	3.1	1.0
	20	4.0	3.0	3.5	4.1	1.6	0.3
	14	6.3	7.7	7.6	8.1	2.1	0.8
	14	2.5	2.4	3.0	3.7	3.5	0.8
Outside double duct	12	3.9	2.0	2.5	5.0	3.3	1.9
	25	5.5	6.9	6.8	7.7	2.4	1.1
	10	6.3	3.5	4.5	7.1	6.9	2.6
	10	4.4	5.9	7.0	7.8	4.5	2.5
Outside single duct	10	5.9	5.3	4.7	6.8	4.1	1.4
	4	6.8	4.6	4.5	8.3	5.9	3.2
	11	5.8	5.7	6.5	7.2	4.0	1.8
	7	6.7	4.8	5.4	7.7	3.7	2.1
Center bulkhead	4	9.0	9.6	10.8	10.8	2.6	1.0
Double-end bulkhead	2	2.8	5.4	8.6	8.9	6.8	3.7

* The data for 14 cars are taken from Table 81, page 199 of the Engineering Report on Air Conditioning of Railroad Passenger Cars, issued April 15, 1937.

† The Multi-Vent distributing panel has approximately 2,000 openings per square foot of surface area.

Coach 533, an old wooden car, was equipped for air distribution, but did not contain a complete air-conditioning system. There was installed only a standard floor-type evaporator and fan assembly. For this reason, tests could not be run with air entering the car through the Multi-Vent panels at the low temperatures obtainable with an air-conditioning system. Moreover, the side steam coils were the only means for applying a heat load. This resulted in an uneven temperature throughout the car, a condition which could not be attributed to the air delivery system.

Tests were made on Coach 533 in an attempt to determine the adaptability of the system to various changes in car structure. The Multi-Vent method of air delivery was originally based upon the theory that a car should be divided into two, three, or four zones, each zone being supplied with a definite quantity of air. The responsibility of specifying the number of zones and the quantity of air delivered to each was placed upon the railroads. The panels were then designed to fulfill the conditions specified.

Table II.—Comparison of Air Movement in 15 Air-Conditioned Cars Equipped with Six Types of Air Delivery*

Type of air-delivery system	Number of outlet grilles	Air movement in feet per minute: At 11-in. height			At 46-in. height		
		Men's end	Center of car	Women's end	Men's end	Center of car	Women's end
Burgess Multi-Vent.	†	19	32	27	47	23	32
Inside center duct.	14	0	30	170	12	45	202
	20	81	70	27	79	103	21
	14	60	24	68	8	50	45
	14	60	30	82	28	10	128
Outside double duct	12	12	20	76	19	8	36
	25	46	15	46	0	44	0
	10	190	0	107	206	0	89
	10	125	42	78	18	17	111
Outside single duct	10	55	27	30	67	55	9
	4	31	52	30	8	0	5
	11	65	55	25	35	35	15
	7	90	39	81	47	12	95
Center bulkhead ..	4	252	85	214	141	27	111
Double end bulkhead	2	78	58	64	0	0	0

* The data for 14 cars are taken from Table 82, page 200, of the Engineering Report on Air Conditioning of Railroad Passenger Cars, issued April 15, 1937.

† The Multi-Vent distributing panel has approximately 2,000 openings per square foot of surface area.

The following tests were made on Coach 533: Test of 54-ft. car divided into three air distribution zones; test of 54-ft. car divided into four air distribution zones, one of which was in a smoking room; test with area so bulkheaded off as to be equivalent to a 30-ft. car with two air distribution zones; test with area so bulkheaded off as to be equivalent to a 30-ft. car with three air distribution zones.

Definite conclusions could not be drawn from the test results because of the erratic method of heating and the use of air at a temperature higher than that encountered in service. It was suspected, however, that there was some error in the zoning theory because wide variations in temperature distribution occurred when the car interior and the zone arrangements were changed. Realizing that any conclusions based on such an installation would likely be misleading, it was decided that a modern air-conditioned car equipped with the Multi-Vent panels should be tested before making any decisions as to the merits of the method.

Coach 7309 was the first modern passenger car equipped with the Multi-Vent panels. This car was a standard coach with a mechanical compression air-conditioning system with an overhead evaporator equipped with a double draw-through fan having very small outlets. The resultant velocity through each outlet was approximately 2,400 ft. per min.

The fan discharged directly into the plenum chamber, but due to the high air velocity, an aspirating effect was produced, with the results that air was drawn from the car into the plenum chamber through the first few panels. Consequently, the temperature at that end of the car was much higher than in the rest of the car. The maximum temperature difference was 15.6 degrees.

From the results of these tests, three conclusions were reached: The velocity of the air entering the plenum chamber must be 700 ft. per min. or less; dividing the car into air distribution zones is not necessary; each air-controlling panel, with the possible exception of those at the ends of the car, may have very nearly the same free area, or distribution of ¾-in. openings.

These conclusions are significant for several reasons, one of which is that standard panels may be used throughout a car.

The undesirable results from the test of Coach 7309 are being corrected by a change in the size of the fan outlets in order to reduce the velocity of the air in the plenum chamber.

Coach 3208 is the eighth of a series of several cars to be equipped by the Chicago & North Western with the Multi-Vent panels. This installation conforms to the conclusions above stated. In this car, low air velocity prevails in the plenum chamber, and the control panels have the same amount of free area. Tests of temperature distribution and air movement in the car were made on June 4, 1937, by the Division of Equipment Research in conjunction with the Chicago & North Western and the Burgess Battery Company.

Temperature Distribution

Thermometers were uniformly placed at fourteen positions in the car, seven on each side. At each position, there were three thermometers, at distances from the floor of 11, 46, and 65 inches. These heights represent, respectively: ankle level, head level when seated, and head level when standing.

Significant facts regarding the temperature distribution as shown in Fig. 1 are : (a) The maximum difference in temperature between any two positions at a given level was 2.3 degrees; (b) the maximum difference in temperature between any two levels at a given position was 1.8 degrees; and (c) the difference between any two averages of the temperatures at the three heights was 0.5 deg. F.

In Table I the temperature distribution in Car 3208 with the Multi-Vent panels is campared with the tests conducted by the Division of Equipment Research in 1936.

Air Movement

The air movement was measured at each of the fourteen positions at the 11- and 46-in. levels and at both ends and the center at the 65-in. level. The air movement, shown in Fig. 2 indicates that: (a) The minimum air movement was 11 ft. per min.; (b) the maximum air movement was 73 fpm. This maximum figure was obtained near the recirculating grille, at which point the air movement is normally high; (c) the average air movement in the car was 31 fpm.

In Table II the air movement in Car 3208 with the Multi-Vent panels is compared with that obtained in the tests conducted by the Division of Equipment Research in 1936.

Two Large Cranes Were Employed to Remove the Girder from the Cars

Erecting Longest Railroad Girder

Pittsburgh & Lake Erie replaces outer truss of double track, three truss through span with girder that measures 162 ft. 2½ in. end to end

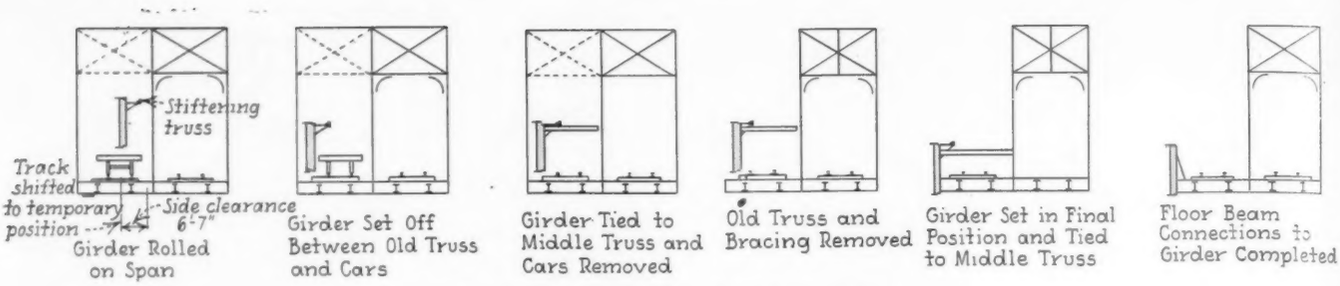
WHAT is believed to be the longest girder for railroad loading ever built in this country was recently incorporated in the Monongahela River bridge of the Pittsburgh & Lake Erie at Homestead, Pa. This girder is 162 ft. 2½ in. in length (end to end), has a height of 10 ft. 6½ in. back to back of flange angles and weighs 100 tons. The limited depth, giving a ratio of depth to length of about 1 in 15, was made possible by the use of silicon steel. It was desired to limit the depth to facilitate shipment and reduce the number of web splices, since narrower plates are available in greater lengths. However, the ratio of length to flange width presented a special problem, because the lack of lateral stiffness of the girder until it was stayed by the floor beams and floor-beam brackets, made it necessary to provide a temporary lateral stiffening truss that was connected to the girder before it was unloaded and not removed until field connections were substantially completed.

Replaced a Truss

The function which this girder performs is out of the ordinary, since it comprises one of three main elements in a double-track through span, in which the other two are pin-connected trusses. The span in question, which carries the Pittsburgh & Lake Erie tracks over the tracks of the Union Railroad, in addition to serving as a part of the river crossing, consisted formerly of three trusses. Some consideration had been given to the replacement of the entire span, but close inspection revealed that conditions pointing to the need of renewal were confined to one of the outside trusses, the center truss and the other outside trusses being in a state that warranted the conclusion that they were fit for many years of additional service.

The primary defect in the one outside truss was excessive pin wear and was readily explained by the fact that it was on the side of the structure that carries the westbound trains, traffic in that direction being appreciably heavier than eastbound. In these circumstances there was no justification for the replacement of any part of the structure except this one truss, and to have renewed it in kind would simply have duplicated an unsatisfactory structure. Furthermore, its erection would have required falsework, increased the time of erection and interfered seriously with train movements on both the Pittsburgh & Lake Erie and the Union. On the other hand, a plate girder could be erected without falsework by a method that introduced no serious complications

The Track Was Shifted as Far as Possible Toward the Center Truss So that the Girder Could Be Set Down Between the Cars and the Side Truss


Stiffening truss
Track shifted to temporary position
Side clearance 6'-7"
Girder Rolled on Span
Girder Set Off Between Old Truss and Cars
Girder Tied to Middle Truss and Cars Removed
Old Truss and Bracing Removed
Girder Set in Final Position and Tied to Middle Truss
Floor Beam Connections to Girder Completed

Six Steps in the Erection of the Long Girder

and afforded means for the ready dismantling of the old truss.

Although the girder is of extraordinary length, the mere matter of length was not responsible for any unusual features of design. In fact, the simplest possible section was used—a web, flange angles and cover plates. The web is ¾ in. thick, the flange angles are 8-in. by 8-in. by 1⅛ in. and the cover plates are 22 in. wide, with four plates having a total thickness of 2½ in. for the maximum flange section. One deviation from the ordinary is the use of a plate 25½ in. wide for the first cover plate of the bottom flange, the extra 3½ in. of width being placed entirely on the inside to provide a gage line for the lateral gusset plate rivets that is independent of the bottom flange rivets.

The extreme length of the girder resulted in a departure from the ordinary with respect to the location of flange splices. The top flange angles are spliced near the center of the span, although the splices in the two angles were separated by about 11½ ft. The bottom flange angles are in three pieces, spliced near the third points, and the first or full-length cover plates of both flanges are spliced about 30 ft. from each end of the girder. The web is spliced at three points.

Unique Floor Beam Connections

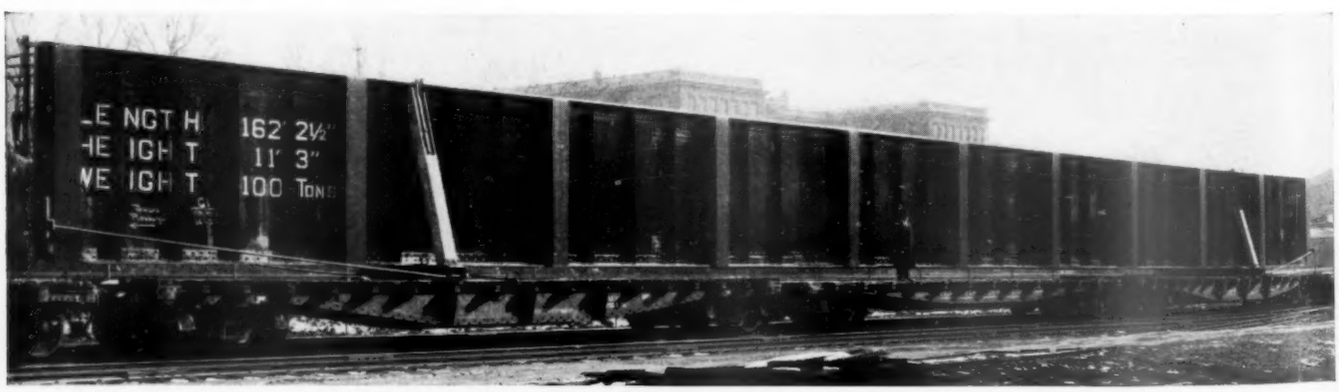
The design of the girder is unique with respect to the floor-beam connections, in that the floor beams do not frame directly into the girders but into a stiffener of unusual proportions. These stiffeners, which were introduced primarily for the purpose of giving adequate lateral support for the top flange of the girder, consist of two 8-in. by 8-in. by ½-in. angles with their outstanding legs separated sufficiently to receive the web of a split 36-in. 230-lb. wide-flange beam placed vertically, with the face of the flange 1 ft. 5½ in. from the center line of the girder. New brackets with 6-in. by 6-in. connection angles were provided for the floor beams, this new material being applied to the floor beams so that the faces of the connection angles would come to bearing against the flange of the split beams described above. To allow for variation in the position of the old floor beams and in the deflection of the new girder, holes in the flanges of the split beams were drilled from solid to match the holes in the brackets.

The unusual stiffener construction at the floor-beam connections served a secondary purpose in that it greatly facilitated the accurate setting of the long, heavy girder in position on the bearings. As the flanges of the split beams of these stiffeners project beyond the wide cover plate of the bottom flange of the girder, previously mentioned, it was possible to lower the girder into place with the smooth face of these beam flanges in contact with the ends of the floor beams, which thus served effectively as guides for the girder as it was being set.

The ends of the girder are bored to receive a 9-in. pin, the bottom flange being cut away to clear the trunnions of the shoes in which the pins rest. As it was necessary to fabricate the girder so that it could be set down temporarily between the old truss and the cars on which it was delivered, close clearances were a formidable problem in the drafting room, in spite of the fact that the track was shifted as close as possible toward the center truss during erection.

The conditions imposed in planning the erection procedure were that there was to be no interruption of train movement on the eastbound track and that no falsework was to be used, but that the westbound track could be taken out of service.

After certain preliminary operations necessary for subsequent steps had been completed, the girder, mounted on the cars on which it was delivered, was moved out on the old bridge, picked up at each end by wrecking cranes and set on blocking over the end bearings in the space between the old outside truss and the cars. But before this was done a lateral stiffening truss was bolted to the top flange and remained in this position until the girder was in final position and floor-beam and bracket connections had been completed. This stiffening truss was made up of single 3½-in. by 3½-in. angles for the web members and double 5-in. by 3½-in. by ⅜-in. angles for

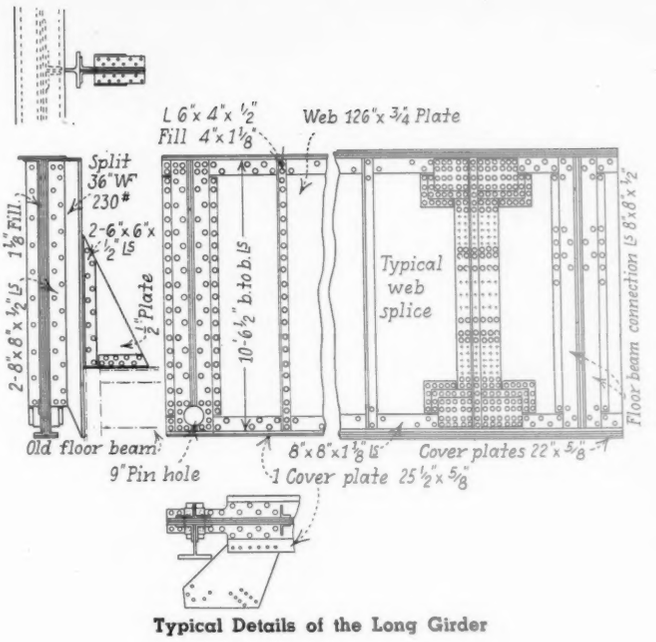


How the Girder Was Shipped—Note the Heavy Stiffeners at the Floor-Beam Connections

one chord, the top flange of the girder serving as the other chord, to which the truss was attached by gusset plates bolted through flange rivet holes. The truss had a depth of 5 feet from the center line of the girder to the face of the chord angles. Nine knee braces were provided to support the chord and afford the necessary resistance to buckling.

After the girder was set down, struts were introduced between the top of the girder and alternate verticals of the old middle truss, and connections made between the bottom flange of the girder and the tops of the old floor beams, after which the strain on the hoisting lines of the two cranes was released and the cars were removed from the bridge.

The next step was the removal of the old side truss, top laterals, cross bracing and portals, the floor beams being supported from the temporary connections to the new girder. The necessary alterations to the bearings were then made to receive the shoes for the new girder. However, before the girder could be moved to its final position it was necessary to release it from the temporary connections to the floor beams, and provide other means for supporting the floor until the final connections could be made to the girder.

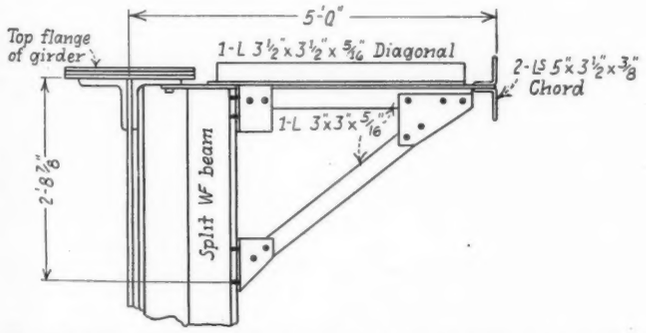


Typical Details of the Long Girder

Floor Beams Cantilevered

This was accomplished by placing steel frames around the posts of the center truss, with bolted connections to the top flanges of the floor beams on each side. In other words, these frames were designed to serve as ties between the tops of the floor beams for the two tracks so that the floor beams for the westbound track could function as cantilever beams in carrying the weight of the floor while unsupported at their outer ends. In fact, while serving in this manner they also carried considerable of the steel removed from the old truss.

While the floor was being supported in this manner, the struts connecting the top flange of the girder to the middle truss were removed, and the girder was lifted from its temporary position and set in its final position



Cross-Sectional View of the Assembly of the Temporary Stiffening Truss and the Top of the Girder

on the bearings. A new set of struts was then introduced between the girder and the posts of the middle truss, after which the two cranes were released.

The final step was to connect the girder to the floor system and the laterals. The brackets were placed in position against the split beams on the girder and after the holes were drilled the connections were fully bolted. Manganese bolts were then inserted in the holes connecting the top flanges of the floor beams to the brackets and gradually tightened to take up the cantilever deflection of the floor beams and bring the ends of the floor beams to their correct positions relative to the girder. To insure good matching, all holes for field rivets in the floor beams and brackets were punched $^{11}/_{16}$ in. diameter and reamed to $^{15}/_{16}$ in. after erection. After the riveting was completed the stiffening truss and the struts to the middle truss were removed.

This work was designed and carried out under the direction of the bridge department of the railroad, with general supervision by R. P. Forsberg, chief engineer of the Pittsburgh & Lake Erie.

Accidents in 1936

WASHINGTON, D. C.

FATALITIES resulting from railway accidents of all kinds increased 5.7 per cent and injuries rose 23.6 per cent in 1936 as compared with 1935, according to Accident Bulletin No. 105 which has been issued by the Interstate Commerce Commission's Bureau of Statistics. The relatively greater increase in the number of injuries, the statement explains, "reflects in part the result of efforts to secure the more nearly complete and uniform reporting of injuries."

The bulletin is divided into three parts presenting in turn introductory comments and charts, general summaries and tables and annual tables by railways. Appendix A presents statements of railway accidents in the United States from 1888 (or other years) to 1936, while Appendix B gives extracts from the rules and "other pertinent information."

The general summary of 1936 and 1935 casualties shows an increase in the relative importance of train accidents, 1936 deaths and injuries from this cause being respectively 15.9 per cent, and 46.5 per cent above the previous year. The distribution by classes of persons reveals "a marked decline" (11.09 per cent) in trespasser injuries; but the increase in the number of fatal and non-fatal accidents to employees "was relatively greater than the increase in the number of locomotive-miles and motor train-miles . . . and also relatively greater than the increase in the number of man-hours." A total of 669 employees on duty were killed and 21,871 injured last year as compared respectively with 555 and 16,348 in 1935. More than one-half of all the persons killed in 1936 were trespassers, but, in the

case of injuries, employees on duty constituted 45.15 per cent of the total. All accidents at highway grade crossings in 1936 accounted for 1,786 deaths or 34.52 per cent of the total; and 4,930 or 25.16 per cent of the injuries.

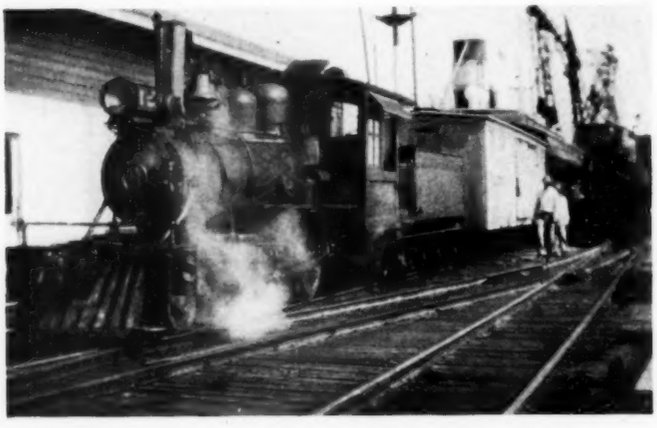
The above-mentioned increase in 1936 over 1935 in the number of train accidents is called "particularly striking." (Accidents resulting from the movement of trains, locomotives or cars are called "train" accidents if railway property is damaged in excess of $150; accidents resulting in casualties to persons with a lesser amount of damage are called "train-service" accidents.) A chart plotting these train accidents per million locomotive-miles and motor train-miles shows that, after the 1923 peak following the shopmen's strike, there was a gradual decline until 1934 and an upswing thereafter through 1936. The latter trend is cited as justification for "some further analysis of this class of accident." The number of train accidents in 1936 was 8,286, an increase of 26.48 per cent over 1935's 6,551.

Classification of train accidents by causes revealed that the group "Miscellaneous" showed the greatest upswing in 1936. In the miscellaneous group are some items that "pertain to condition of track or equipment." These items were withdrawn from the miscellaneous group and accidents attributable to them were added to those assigned to defects in or failure of equipment and defects in or improper maintenance of way and structures. Under this new grouping train accidents due to "Condition of track or equipment" accounted for 58.41 per cent of the 1936 total, as compared with 54.77 per cent in 1929. Meanwhile the next largest group—those due to "Negligence of employees"—shrank in relative importance from 34.65 per cent in 1929 to 29.64 per cent in 1936.

"Some examples of the more prominent causes" contributing to the increase in train accidents are cited as follows:

> Train accidents due to defects in or failures of parts and appurtenances of locomotives and tenders other than boilers increased from 411 to 532, or 29.4 per cent. Cases of defects in or failures of trucks increased from 687 in 1935 to 862 in 1936, or 25.5 per cent. Train accidents due to defects in or failures of wheels and axles increased from 869 to 1,135, or 30.6 per cent. Those due to defects in or failures of hand brakes, brake rigging, and appurtenances increased from 207 to 257, or 24.2 per cent. Defective couplers caused 153 train accidents in 1935 and 171 in 1936, an increase of 11.8 per cent. Defective draft rigging was responsible for 146 train accidents in 1935 and 167 in 1936, or 14.4 per cent more. Defects in car bodies and other parts of equipment itemized in table 65 resulted in 132 train accidents in 1935 and 213 in 1936, an increase of 61.4 per cent. In the causes listed under "Defects in or improper maintenance of way and structures," 303 train accidents were assigned to rails and joints in 1935, compared with 397 in 1936, or 28.9 per cent more. Under "Defects in frogs and switches," 176 cases were reported in 1935 and 211 in 1936, an increase of 19.9 per cent. Uneven superelevation, improper alinement, and improper surface of track caused 153 train accidents in 1935 and 229 in 1936, or 49.7 per cent more. Landslides, boulders, and snow or ice on tracks were responsible for 106 train accidents in 1935 and 183 in 1936, an increase of 72.6 per cent.

* * *



Passenger Train of the Standard Fruit & Steamship Company at La Ceiba, Honduras

While the total number of persons killed in train and train-service accidents was higher in 1936 than in any year since 1929, the number of passengers on trains who met death in such accidents was lower than in any year of the past decade, save 1932. The fatalities among passengers on trains dropped by one (from 18 to 17) in 1936 as compared with 1935, but the number of injuries to passengers on trains rose 30.93 per cent. The rate of casualties to passengers in train and train-service accidents per 100-million passenger miles "shows some tendency to increase since the low point of the depression."

The number of employees on duty killed in railway accidents of all kinds was 20.54 per cent greater in 1936 than in 1935; the rise in injuries to employees was 33.78 per cent. Fatalities to the class of persons labeled as "Other non-trespassers" increased 8.34 per cent and injuries 12.59 per cent; trespassers killed increased less than one per cent, while there was the above-mentioned drop of 11.09 per cent in injuries to this class. Of the 1936 grade crossing accidents, automobiles were involved in mishaps accounting for 28.14 per cent of fatalities in all railway accidents. In 1936 the hour of greatest frequency of grade crossing accidents was between 11 p. m. and midnight; in 1935, between 6 p. m. and 7 p. m. Saturday was the day of greatest frequency in both years.

"Fine Distinctions" in Injury Reporting

Field inspections made by the Bureau of Safety during 1936 revealed instances "where accidents clearly reportable under the rules had not been reported." In this connection, the Bulletin's introductory comment continues, "the advent of the safety contest on the railways has tended to create some fine distinctions as to what constitute reportable injuries to employees, and interest has been aroused as to the effect of omitting from the reportable class those injuries causing three days or less disability." Data gathered as a result of a special order requiring reports of employee accidents causing disability beyond the day of the accident indicate that "railways having the best records for 'regular' casualties did not necessarily have the best records for 'special' casualties." In the Eastern district, for example, the road with the lowest rate for regular cases had the highest rate for special cases; and in the Southern district the leader was third with respect to special casualties. In the Western district the same road had the lowest rates in both categories.

Appendix A presents "for the first time" a table showing the amount of damage to railway property resulting from reportable train accidents since 1923. The total amount of damage dropped from $27,624,880 in 1923 to $11,398,493 in 1936. The proportions of the total damage due to damage to equipment, to damage to way and structures, and to cost of clearing wrecks remained about the same throughout the period. The reduction in the amount of damage was not as great, however, as in the number of train accidents, namely from 27,497 in 1923 to 8,286 in 1936, with the result that the trend in the average cost per train accident has been generally upward.

Safety As a Railway Problem

Present progress and trends—employee training—accident investigation—financial aspects

JOINING with other sections of the National Safety Council in its twenty-sixth national safety congress at Kansas City, Mo., on October 11-15, the Steam Railroad section held meetings devoted to the specialized problems of railway safety activities on Wednesday and Thursday afternoons. In addition to safety officers representing railways throughout the country, these meetings were largely attended by members of safety committees and other employees of railways adjacent to Kansas City. W. W. Wood, superintendent of the safety and welfare departments, B. & O., Baltimore, Md., presided.

The program on Wednesday afternoon included papers on The Past, Present and Future of Railroad Safety, prepared by J. M. Symes, vice-president, operations and maintenance department, A.A.R., Washington, D. C., and presented in his absence by H. A. Rowe, manager claims department, D. L. & W., New York; on The Dollars and Cents Side of Safety as Viewed by the Chief Executive, by Fitzgerald Hall, president, N. C. & St. L., Nashville, Tenn.; and on Employee Training and Its Relation to Accident Prevention on American Railroads, by Isaiah Hale, superintendent of safety, A. T. & S. F., Topeka, Kan. On Thursday afternoon, addresses were presented on Safety an Executive Operating Problem, by R. C. White, assistant general manager, M. P., St. Louis, Mo.; on Streamlining for Safety, by C. E. Johnston, president, K. C. S., Kansas City, Mo.; and on The Necessity for Adequate Accident Investigation and the Need for Suitable Discipline before the Accident Occurs, by P. F. Buckle, superintendent of safety, C. B. & Q., Chicago. Abstracts of these papers follow.

Symes Reviews Progress

"Safety has been in the past, is today, and always will be the first principle in railroad operations," said J. M. Symes, vice-president of the A.A.R. "No industry in the world requires more diversified study and more exacting application of safety principles than the steam railroad industry. Ever since the first steam train was operated in this country more than a century ago, trained engineers have been striving constantly to develop stronger, more durable, more efficient and safer roadway and equipment.

"As early as 1915 a steam railroad section of the National Safety Council was organized. Here was the beginning of organized study of mutual problems. By 1921, safety work on the railroads had come to be such an important function of operations that a safety section of the American Railway Association, now the Association of American Railroads, was organized. At the 1924 annual meeting, the Committee on Statistics presented a comprehensive report on railway accident statistics. The committee concluded that a 5 per cent reduction in the employee casualty rate could be effected each year, which, by the end of 1930, would be equivalent to 35 per cent. When final returns for the year 1930 were compiled, the results were just short of 70 per cent. An equivalent reduction was made in the frequency of passenger casualties.

"Reductions in the frequency of railroad accidents of all kinds continued down through the year 1935, although the annual rate of reduction was not as great as during the period 1923-30. In 1936, there was a sharp upturn in railway traffic. This was accompanied by a slight increase in the frequency rate of accidents. Concern has been expressed that this reflected a letdown in railroad safety work. This is not the case. The increase is due to the return of furloughed men to the service and by the employment of new men.

"Railroad managements are more alive today to their responsibility in safeguarding passengers and employees than at any time in the history of rail transportation. The safety section of the association, backed by 15 years of experience in the scientific study of accident causes and in the intelligent application of remedial measures, is more effective today than at any time in its history."

Pointing out that the sudden upturn in business and the subsequent reemployment of furloughed men and hiring of new men had tended to increase the frequency of accidents, Mr. Symes expressed faith in the basic soundness of the carriers' safety organization and its ability to stem the rise in accidents. "I am glad to say that preliminary figures for the first six months of 1937 bear me out in that respect," he declared.

"We may expect continuing progress in engineering, with both direct and indirect benefits to operating safety," he said. "This applies to the design of locomotives and cars, the installation of safety devices thereon, improvements to rail and roadbed, better tools and machinery in shops. These things are under constant study by the railroads and the discoveries and refinements of one road are immediately available to all other roads.

"We hope for a continuing reduction in accident frequency rates. We have made such tremendous strides in safety since 1923 that progress from this time on will be necessarily slow. Possibly we must go through periods of slight upturns in casualty trends, such as in 1936, but I am confident that over a period of years we will see a distinct and unmistakable downward trend."

In discussing Mr. Symes' paper, Harry Guilbert, director of safety, Pullman Company, criticized railway managements for placing insufficient emphasis on the safety of employees where, he said, there is still much room for improvement. "We can accomplish much," he said, "by placing the responsibility for accidents where it belongs and we will not get complete results until railway managements take the safety of their employees more seriously."

Fitzgerald Hall Discusses Costs

In opening his address, Fitzgerald Hall, president of the Nashville, Chattanooga & St. Louis, took sharp issue with Mr. Guilbert, characterizing his criticism as false and unfair to railway management. Turning to his address he then said that "safety is like character.

It cannot be had for the asking. It is the result of hard and intelligent work. Yet the results of safety are reflected in the financial statements of the railroads."

"How much is safety worth to the railroads?" Mr. Hall asked. "Let us turn to the record for the answer. In 1920, unsafe practices, unsafe facilities and the unsafe or careless acts of men were largely responsible for the American railroads paying out for injuries to persons (employees, passengers, trespassers and others) $56,237,476. In the same year unsafe practices, unsafe facilities and the unsafe or careless acts of men were largely responsible for American railroads paying out $20,887,933 for clearing wrecks, $10,048,734 for damage to property, $7,168,579 for damage to livestock, $120,643,409 for loss and damage to freight and baggage, or a grand total of $214,986,131.

"These payments added nothing to the national income. They were waste. In 1920, the railroads went to work to eliminate this waste. They bought safer machines and tools—they built safer equipment and facilities—they held safety classes—they kept this up day after day.

"Looking at the record for 1936, they reduced payments for personal injuries to $24,218,508, for clearing wrecks to $2,965,079, for property damages to $2,631,735, for livestock payments to $1,563,027, and for freight and baggage claims to $21,353,971, a total of only $53,000,000. Safety in one year, 1936, produced dividends for the railroads of $162,253,811, as compared with 1920.

"There are other results of this safety campaign," Mr. Hall declared; "the safety of railway travel is increasing passenger revenue; safe tools, safe places to work, sensible safety rules, enable men to produce more and better work. Safe men, that is, uninjured men, have a higher 'esprit de corps', and a greater efficiency.

"But our work is far from finished. Consider one railroad safety problem alone—the existence of some 234,000 grade crossings, over which run 28,000,000 automobiles.

"Safety, like liberty, is not static. Both may flower and wither. Eternal vigilance is the price of each. Rules, laws, edicts, even devices are not enough. Automatic signals, automatic train control, any device, to function safely, must, in the ultimate, depend upon a trained, experienced and careful man."

Mr. Hall closed his address with a denunciation of racketeers of safety who used this desirable objective as a means of promoting their own ends. Among measures of this character, he specified the train limit bill which, although advocated as a safety measure, comes in no sense within this category.

In discussing Mr. Hall's paper, Robert Scott, director of insurance and safety, A. C. L., joined Mr. Hall in protesting against Mr. Guilbert's criticism of railway managements for neglecting safety and paid a tribute to these managements for the co-operation which has made the safety record of the railways so outstanding. Substantiating Mr. Hall's figures of financial savings resulting from safety, Mr. Scott said that the Atlantic Coast Line had reduced its payments for accidents to persons from more than $1,000,000 in 1906 to $250,000 in 1936.

Safety an Executive Problem

R. C. White, assistant general manager of the Missouri Pacific, spoke on the responsibility of railway management to prove the sincerity of its interest in safety by making the appropriations necessary to initiate and carry out a safety program.

"I am profoundly sensible to the fact that safety is an obligation of management," Mr. White declared, "and that without the constructive leadership and day-to-day urge from executive and operating heads, the movement will lapse into a perfunctory activity and the results will not be what all of us want. Having made the decision that safety is both an executive problem and responsibility—that accidents must stop—it is then essential that management promulgate and follow through a plan that will definitely fix this decision in the minds of every individual that collectively make the industry.

"The follow-through must be such that department heads, superintendents and every member of the supervisory force will realize that passive interest in safety will no more produce results than would the same interest in production, and that the prevention of accidents will have the same character of heads-up supervision that is given to the other problems affecting cost and service.

"Analysis of the direct and underlying causes of industrial accidents and preventive measures to be applied have made it increasingly apparent that those factors which are producing accidents are very largely the same factors which tend to lower the quantity and quality of production. Expressed in another way—when applied to industry, safety and efficiency are as inseparable as though one word."

Isaiah Hale on Employee Training

Employee training and its relation to accident prevention was the subject assigned to Isaiah Hale, safety superintendent, Santa Fe System. In speaking on this subject, Mr. Hale defined accident "as a word to excuse our neglect, to hide our weakness, ease our conscience and cover our failure." While we should never cease to be sympathetic with misfortune, he said, I have often wondered whether, if we were to take the position that practically none of our employee injuries are really due to "accidents" and would make it plain to those who incur them that their injuries were self-inflicted, we might not more successfully guard against them.

It is my further observation, he continued, that practically all industrial injuries are due either to the use of poor judgment, to the violation of a rule made for the workman's protection, or to a complete disregard of the possible consequence of irresponsible acts and that, broadly speaking, the *actual* cause of an injury is not often much to a man's credit. Few of our injuries are due to an irregularity indulged in for the first time; on the contrary, they are the cumulative result of long continued, slipshod working habits and are made possible only by lax supervision.

Too many supervisors today think that because of the thousand and one duties put upon them, they are too busy and do not have the time to give their men the personal attention which a systematic course of training of the individual worker must necessarily have if this recognized need is ever met.

The big stick should have no place in our safety programs. It is through patient, painstaking teaching and training that we must get workmen to add their efforts to ours to safeguard them in their every day work. The man who works safely when there is no danger will be safe when there is danger. Workmen must be made to remember that their work is just as safe or dangerous as *they* want to make it.

If we hire the right man to start with, start him right by putting him at work for which he is physically and tempermentally fitted, and keep him right, we will be surprised to find how short will be the time that he will

have to be watched. Most men want to do right when they know what right is and when they do wrong, it is more apt to be because of their ignorance than to their deliberate intent.

Accident Investigation and Discipline

Speaking on the necessity for adequate accident investigation and the need for suitable discipline before the accident occurs, P. F. Buckle, superintendent of safety, C. B. & Q., said that the human element continues to be the predominating factor in our safety problem. Therefore, one of the reasons why our safety record has been more or less static during the last three or four years, following a number of years of steady decline in personal injuries each year, is our failure to reach all of our railway employees with our safety message. Some gaps remain in the enthusiastic belief that safety should come first.

It should not be necessary for 669 railroad employees to lose their lives or for 21,871 others to suffer injuries that resulted in incapacitation of more than 72 hr. within the 10 days following the accident in one year of railroad operation; yet that was the experience of the American railroads in 1936. We must face these facts and put in motion corrective measures.

It may be difficult for an officer to maintain an open mind while making an accident investigation. Yet a biased record of an accident or one which omits some essential detail makes that record valueless.

Those who review accident investigation reports can be helpful in improving the quality of the investigations if they will call the investigator's attention to the omission of essential facts.

If we are to be successful in making further reductions in personal casualties, suitable action should be taken in each case of rule infraction or violation, regardless of the results of such infraction. In other words, we should be just as conscientious in investigating and taking proper corrective measures when those incidents occur without serious results as we would if disaster attended the event. Discipline administered for the results of a casualty and not for the cause has doubtful value as a corrective measure. Minor rule infractions that occur without serious results cannot be passed by lightly for such a policy will lead only to contempt for the rules.

Train service employees are given surprise tests on operating rules to determine their alertness. Similar tests might well be made among all classes of employees to determine their knowledge of the safety rules.

Streamlining for Safety

C. E. Johnston, president of the Kansas City Southern, accepted modern terminology as the topic for his address, of which the following is an abstract.

Both the streamlined vehicle and the streamlined safety program have one very important common purpose —the reduction or elimination of resistance and friction. If I can offer any suggestions that may aid in overcoming the inertia or friction that tends to minimize the results of your efforts, the time spent may be productive of some progress toward the streamlined stage of safety.

I recommend first of all that, so far as practicable, you have a first hand knowledge of the physical property with which you are connected. By that I mean getting out and seeing things for yourself. Where unsafe conditions are reported to you, look them over yourself, if at all possible, or at least have them thoroughly explained to you so that you will know the why and wherefore of the existing hazard and can present a practical means of overcoming it. On a large property this cannot, of course, be done by one man, but a safety representative can save himself difficulty if he will acquaint himself fully with the particular situation to be remedied and be in a position to offer definite and practicable means for correcting it.

He will find that his associates are for the most part just as anxious to correct an unsafe condition or situation as he is, and will welcome concrete suggestions as to how it should be done. I am not suggesting that departmental officers should wait for safety officers to bring unsafe conditions to their attention before correcting them if they themselves are aware of their existence. There is no better way to educate a fellow officer or employee along the lines of safety than to direct attention to unsafe conditions or practices, explain the nature of the hazard and show how it can be corrected.

Secondly, I recommend that you refrain from advocating a specific safety rule to cover any except the most outstanding hazards. This recommendation may be entirely at variance with the views of many of you. I am strongly of the opinion, however, that strict observance of a relatively few vital rules brings about much better results than a continual enlargement of the rule book in the futile effort to cover every conceivable accident hazard. Furthermore, a multitude of rules is confusing to the average mind, and causes discouragement to the officer who tries to enforce them and to the employee who wants to observe them.

Third, I recommend avoiding generalities so far as practicable in spreading the gospel of safety. The safety officer commands more attention and respect when he directs his written and spoken remarks towards a definite subject applicable particularly to the person or persons addressed.

Fourth, have before you at all times a budget, or outline, of important uncorrected safety hazards which you feel should be given attention, arranged according to the degree of need. Assuming that most of them cost considerable money, you should be in position at a moment's notice to offer your recommendation as to which should be taken care of first, and such an outline should be presented from time to time to your superior officer so that he may be in possession of your ideas when the opportunity comes to take care of some of them.

Fifth, inform your immediate superior currently of your activities and your problems. Be persistent but not insistent. Remember, also, to be consistent. Naturally you will avoid burdening him with petty matters that are of little importance, but keep after him concerning features of the work in which his help is needful. The fact that your company employs you as a safety representative is evidence that the management considers there is a need for this service. Let them know what you are accomplishing and what you are failing to accomplish, and why.

Sixth, the safety officer must bear down on the importance of safety supervision on the part of officers and foremen. You all know that this is one of your most pressing problems. Never overlook a suitable opportunity to impress an officer or supervisor with his responsibility for accident prevention in his department. This may require an unusual degree of tact and diplomacy in some cases. It is so well understood in others that there is little need for a safety representatives to stress the point.

Last, but not least, seek a way in which to have a

voice in the selection of men entering the service. If possible, secure the power of veto in this respect. It is widely recognized that a sound body is necessary in the applicant, but that this is not sufficient. He ought also to have an acceptable family background, a reasonably good education, an alert and interested attitude, and an aptitude for the work in which he is to engage. Emphasis on this point applies, of course, to ranks above that of ordinary labor. Visualize, if you will, a property manned entirely by individuals thus carefully selected.

I am not unmindful of the fact that "safety percolates down from the top." Sometimes, though, I think that a little heat applied somewhere down in the organization tends to help the percolating process. Certainly, if the safety man is content to assume an attitude of lukewarmness, he cannot expect much support from the executives. You will recall there is also a saying that 'the squeaky wheel gets the grease'—and a squeak now and then from the safety organization will sooner or later attract attention.

May I say that it is freely recognized that those of you who are operating officers have many other important duties to attend to in the course of each day's work, and that there is a real temptation to consider prevention (other than collisions or derailments) as a side issue or as a matter to be left largely if not entirely to the safety organization. That is a natural outcome of failure to accord accident prevention its rightful place in economical operation.

For some reason there has seemed to be a general tendency to overlook or disregard the actual out-of-pocket loss that is involved in even a minor injury. Get out your pencil some day and figure out every conceivable loss to the company, including loss of time of the injured employee and of his foreman and associates, disorganization of the work, compensation for no service, and so on, and see for yourself what it amounts to. Also, add in the value of your own time which you spend in looking over the situation involved in the particular accident, which you might have spent with more profit to yourself and your company.

I would say to operating officers—avail yourselves of the expert knowledge of your safety men. Give them suitable opportunity to talk to you, and if they do not come in occasionally, send for them. Let them know that you consider their job a worthy one. If they, themselves, are inactive, give them something to do—ask them to solve some safety problem that is confronting you. Above all, lend them your active co-operation in every possible way.

Traffic Clubs Do Not Want Government Ownership

Active participation in solution of transportation problem urged as a measure to prevent regulation of all industry

OPPOSITION to government ownership of railroads and to legislation which might jeopardize transportation was vociferously expressed at the sixteenth annual convention of the Associated Traffic Clubs of America at St. Louis, Mo., on October 12 and 13. Not only was this attitude reflected in discussions and actions taken by members, but it was emphasized in the remarks of the three principal speakers—Samuel B. Pettengill, U. S. Representative from Indiana; Wm. T. Nardin, vice-president of the Pet Milk Company; and M. J. Gormley, executive assistant of the Association of American Railroads. In addition, a resolution was adopted in which the delegates to the meeting of the Associated Traffic Clubs of America vigorously oppose and condemn that portion of the proposed reorganization bill which would make possible any consolidation of the I.C.C. with any existing or subsequently established executive branch of the government. The board of directors of the Associated Traffic Clubs of America reaffirmed the association's position in opposition to the train limit bill which has passed the Senate and which is now pending in the Committee on Interstate and Foreign Commerce of the House of Representatives, and notified all member clubs to take such action on the bill as in their judgment it merits.

The meeting at St. Louis, over which President H. S. Snow, vice-president and traffic manager of the American Zinc, Lead and Smelting Company, presided, was one of the largest in several years, the attendance totaling 925 persons from 73 clubs, out of a total of 97 clubs having a total membership of 25,000 persons. It had as its objective the solution of the transportation problem through discussion of economic developments and the promotion of educational activities by individual clubs with a view to bringing about a better understanding of all phases of transportation. In addition, the program provided for discussions leading to the perfection of social activities and publications for disseminating information.

As an adjunct to carrying out the program already undertaken by the association, all officers were re-elected for the third time. These include President, H. S. Snow, St. Louis, Mo.; Chairman of the Board of Directors, J. M. FitzGerald, vice-chairman of the Committee on Public Relations of the Eastern railroads, New York; Executive Vice President, W. F. Schulten, traffic manager of the Chicago District Electric Generating Corp., Chicago; Secretary, Frederick A. Doebber, traffic manager of the Citizens Gas and Coke Utility, Indianapolis, Ind.; Treasurer, W. T. Vandenburgh, retired commercial agent of the Seaboard Air Lines, Louisville, Ky.; and Vice-presidents, A. W. Carey, traffic manager of the Tennessee Coal, Iron and Railroad Company, Birmingham, Ala., M. M. Goodsill, general passenger agent of the Northern Pacific, St. Paul, Minn., L. W. Land, south western freight agent of the Baltimore & Ohio, Dallas, Tex., C. R. Musgrave, vice-president of the Phillips Petroleum Company, Bartlesville, Okla., and

G. Lloyd Wilson, professor of commerce and transportation of the University of Pennsylvania, Philadelphia.

Directors Sponsor Activities

Probably the most important action taken at the meeting to foster the economic and social activities of member clubs was the adoption of the report of the board of directors. Its report warned members against the proposal for the reorganization of governmental departments in Washington in-so-far as it relates to the Interstate Commerce Commission, and cautioned members not to be lulled into the belief that the settlement of the railroad wage controversy means that no further action will be taken by the brotherhoods to secure legislation affecting railroads. "We will be very foolish," the report continued, "if we lull ourselves into the belief that there is nothing further to be done by shippers, travelers and the public at large." As a means of improving club activities, the directors approved the establishment of closer relationship with students of transportation and with groups of students in universities and colleges which offer a general educational course. In addition, it now has under consideration the giving of awards to individuals for the best papers on transportation subjects, for outstanding work in the traffic educational field and to member units having the best club publications.

The activities of the member clubs, as revealed in their reports, extend from philanthropic enterprises, such as that of the Traffic Club of Cleveland, which equipped three rooms at the Cleveland Orthopedic Center for crippled and disabled persons, to the introduction of traffic and transportation courses in school curriculums. Many clubs conduct their own educational activities while not a few have co-operated with high schools and universities in the establishment of traffic courses. The Traffic Club of St. Louis, in co-operation with the public schools of that city, has made available free courses in traffic and transportation, with the result that 250 students are now enrolled. As a result of the efforts of some clubs, several universities are now offering courses. At the University of Tulsa, for example, a night course in the principles of transportation has developed into three courses, one on traffic, another on transportation law and a third on the theory and practice of transportation.

Dallas, Tex., was chosen as the place for the 1938 spring meeting and Cleveland, Ohio, for the 1938 fall convention.

Oppose Restrictions on Railroads

The major portion of the discussion at the St. Louis meeting dealt with the transportation problem and further legislation. J. R. Koontz, chief traffic officer of the St. Louis-San Francisco, condemned the burdens being placed on railroads because they limit the improvements already started and expected to be made in the future. He contended that so long as industries may raise their prices to meet increased costs railroads should be permitted to do likewise.

T. C. Burwell, vice-president and traffic manager of the A. E. Staley Manufacturing Company, Decatur, Ill., said that in seeking a solution to the transportation problem, freight rates as such should not be held so paramount by shippers as to preclude consideration of more important and far-reaching factors. Rates, he continued, should be such as to permit the purchase of raw materials in a common market and the selling of the finished product in a common market to meet competition. He advocated the reduction of rates wherever such reductions would produce additional revenue.

Mr. Pettengill, speaking at the banquet on October 12, outlined the effect of the reorganization bill and the Supreme Court measure on both transportation and industry. He urged shippers, motor and bus carriers and investors in any form of transportation to lend a hand in stopping the development of confiscatory policies. Mr. Pettengill's speech was published in the *Railway Age* of October 16.

"Rearrangement of Prejudices" Is Not Thought

Mr. Nardin, in his address, took the position that leaders in transportation and industry must demonstrate that they can solve their problems, not in behalf of narrow or limited interests but in behalf of the broad public interest without government ownership. In support of this position he said, in part:

"'Much that is called thinking isn't thinking at all. It is only a process of rearranging the individual's prejudices.' As I have reflected upon our transportation problem, I have been strikingly impressed with the pertinency of that remark, not that those engaged in consideration of this problem have been more strongly predisposed than others to the influences of prejudice, but because of the fact that in the transportation field there have been many circumstances and conditions tending most strongly to develop prejudice.

"If all the men who participated in the development of transportation had been well-intentioned, if all had been schooled in all of the known laws of economics, and if all had been men of superior intelligence, there would still have been, in that venture, in all reasonable probability, appalling errors of judgment, with distressful results to the participants in the enterprise and to the general public. There is no need now to review the extent to which the directors of that great activity fell short of universal good purpose, of sound understanding of economic laws, or of the possession of superior intelligence.

Punishment, Not Correction, the Aim

"Those who are not engaged in the transportation business were well-nigh unanimously bent, not on sanely corrective measures, but on punitive measures. This attitude was most strikingly shown in the legislative enactments which threatened, and in many cases accomplished, destruction of transportation companies. And when that destruction occurred with disastrous results to that part of the public which, directly or indirectly, were investors in the transportation companies, so befogged was the public thinking that the blame was laid almost wholly at the door of the companies, with little recognition of the contribution which public attitude and action had made to the disaster.

"There are those who have the conviction, or so declare, that our transportation problems are to be solved by government intervention to the extent of ownership and operation of the railroads by the government. There is, in my judgment, no more striking illustration of prejudice-provoked thinking than is exhibited by those who favor this course. It is favored by those who avowedly believe that their special interest would thereby be promoted. With the general public interest they are not concerned. It is favored by those who indulge the blind assumption that to solve a problem the government need only assume responsibility for its solution. Conceding to them honest interest in the public welfare, their lack of understanding of what will promote that welfare makes them no less dangerous than are those who are moved by considerations of special interest. I

do not believe that government ownership of railroads will solve our transportation problem in the public interest.

"I can no more bring myself to favor government ownership of railroads than I can find in my mind approval of the idea that all our industrial ills can be cured by government planning. But we shall have government ownership of railroads as we shall have government planning for industry, unless those who direct the railroads and those who are responsible for the direction of our industrial organization do some careful, thoughtful and comprehensive planning for themselves.

Condemn Government, But Do Nothing Themselves

"The indictment which I draw against industrialists of all classes is that we have not seriously and comprehensively sought the way. In the face of ills which we cannot deny, we have opposed all government effort to cure the ills while we ourselves have proposed no cure. When railroad rebates and discriminations and many other evils existed in the field of transportation, railroad men opposed the establishment of the Interstate Commerce Commission, without proposing how they themselves would eliminate the evils. Though panics had come and industry had been handicapped because of a faulty currency system, bankers of the nation opposed the establishment of the Federal Reserve System, without themselves proposing a cure.

"None of this is in defense of government ownership or of government planning. I approve of neither, in principle. I disapprove of most of it as it has been practiced. But I deplore the spectacle of industry, with a record of great accomplishment in the past, exhibiting the folly of opposing those who, in good purpose, seek to cure the obvious ills which, despite our great accomplishment, have developed from our activity. The obligation is upon us to find the way to cure the ills.

"I cannot refrain from suggesting that those directly interested in the field of transportation need, for the solution of their problems, something more than a national transportation committee which shall work a while and make a report and die. If the transportation problem is to be solved without government ownership, it would seem to one who looks at the subject from a distance that the transportation industry needs speedily to put forth concerted effort to find the way to demonstrate to the government and to the public that its problems can be solved, not in behalf of narrow or limited interests, but in behalf of the broad public interest, without government ownership.

"And, by the same token, all of industry needs to make concerted effort to find the way to demonstrate to the public and to the government that it can cure the ills incident to its operations without the intervention of government planning."

Proper Rates Essential to Solution Says Gormley

Mr. Gormley pointed out that the transportation problem cannot be solved without a transportation policy, and that one phase of the policy should establish adequate rates. He also showed the lack of policy in the treatment of subsidized forms of transportation and called upon traffic men to establish a transportation policy on which they can all agree.

"In the first place," he continued, "I think you will all agree that you cannot get along without the railroads and, in the second place, if they are to be continued under private operation, they must be supported. They can only be supported by the rates paid by the public. We believe it should be a part of a major study on the part of every traffic club and its individual members to find ways and means for advocating the proper rates to insure the continuance of an efficient transportation machine, rather than to concern themselves so much with their individual, selfish problems of trying to see how they can bring about a reduction in rates or at least oppose any necessary increases therein.

"The situation is such at the present time that they could perform no better function than to impress upon governmental authorities the necessity for the establishment of a sound, continuing transportation policy, which must include the payment of sufficient rates to place transportation on a basis where it will not be continually a problem before the country. The malnutrition diet handed out to the railroads in years past by regulating authorities has resulted in the peculiar situation existing today where the railroads are not permitted to acquire enough surplus during times of great prosperity to avoid the necessity for application for increases in rates in times of depression.

"Studies have been conducted by eminent men in the past in an effort to reach some understanding that would definitely settle the transportation problem for a long time to come. I have in mind particularly the Coolidge Commission. The net result of that has been the placing of a lot of books on the shelves to accumulate dust throughout the ages and no action.

"In my opinion, there never will be any action except as the result of a Congressional inquiry with a view to establishing a sound transportation policy. There probably would not be great difficulty in accomplishing that result if the shippers could be organized to present what might be termed the conclusive opinion of the majority as to what action should be taken. Work has been done on this by the Associated Traffic Clubs, the National Industrial Traffic League, Chambers of Commerce, the Railway Business Association and others. And finally, newest in the field is the Transportation Association of America. This is the only organization that represents agriculture, banking, manufacturing, railroads and other forms of transportation. We look with hope to the production by that Association of a plan for a national policy that might be presented to a committee of Congress organized along the lines of the Newlands Committee. This will require time but the immediate necessities of the railroads should not be neglected during the consideration of a national policy."

* * *

Photo by C. F. H. Allen

Canadian Pacific Train No. 2 Passing Ste. Anne de Bellvue, P. Q.

Motor Transport Section

Part of the Large Fleet of Trucks the T. & P. Has Built Up This Past Year

T. & P. Expands Highway Service

One of the first railways to co-ordinate rail operations with trucks now has system-wide coverage

THE Texas & Pacific, through the medium of its wholly-owned subsidiary, the Texas & Pacific Motor Transport Company, established rail-highway co-ordination as early as September 9, 1929, being a pioneer in this respect. While the results obtained were satisfactory, the co-ordination grew slowly and as late as a year ago inter-city truck operations, while quite successful, were confined to isolated areas. At that time, truck routes were operated along the two railway lines between Shreveport, La., and Cypress, approximately 90 miles each, constituting the extent of the rail-highway operation.

In contrast, today the Texas & Pacific Motor Transport Company operates from Shreveport, La., to New Orleans, covering all branch lines, while the Texas operation consists of a complete coverage from Dallas and Fort Worth to Big Spring on the main line and from Monahans, Texas, to Lovington, N. M., 112 miles on a branch line. In addition to this actual operation, the transport company now has application filed with the governing bodies to operate trucks between Marshall, Texas, and Texarkana, 67 miles; another application between Sherman, Texas, and Texarkana, 155 miles; and a third from Wills Point, Texas, to Gladewater, 64 miles, which is in connection with an application to purchase the operating rights of a truck line between Dallas, Texas, and Shreveport, La., which proposal is now pending before the Interstate Commerce Commission. In West Texas an application is pending before the Texas Railroad Commission for the right to operate from Big Spring, Texas, to Pecos. If permission is granted on these applications, the transport company will operate trucks over the entire T. & P. system of nearly 2,000 miles, except for the light traffic territory on the west end between Pecos, Texas, and El Paso, 214 miles. Proof that such operations have been and will be successful is borne out by the fact that merchandise traffic has increased as much as 300 per cent in certain sections in the last 12 months and has shown substantial increases elsewhere on the T. & P. system.

Organization

The transport company was organized primarily to serve the larger number of patrons along the railway who are shippers and receivers of merchandise. Of course, the service to jobbers in the large centers has been materially improved, but this was only incidental in a sense. Such jobbers are constantly in touch with the traffic solicitors of the railway and are able to make their wants known at all times. The theory under which the T. & P. built up its merchandise traffic was that local shippers and receivers should be contacted frequently and have their wants studied and provided for as far as possible.

On this basis, a separate force was set up to solicit

merchandise shipments and to arrange for merchandise service. The solicitors concentrate on merchandise and on the problems of the local shippers and receivers. The effect on the local men is not only apparent in the amount of business they give to the railway, but also in the fact that they have been instrumental in smoothing the way for the transport company to get permits for new operations. In every case, local merchants have appeared before the licensing bodies in large number to testify in favor of the transport company. Among the solicitation factors are the drivers. Insofar as possible, university graduates are employed and they are trained and expected to solicit freight and to develop possibilities for new services.

The service has been widely advertised, not only by the transport company, but also by the local drayage companies that handle the collection and delivery service in the larger centers, such as Fort Worth and Dallas. In addition, the transport company has received much valuable publicity as the result of trips on the fast merchandise trains and their connecting trucks by newspaper men and editors of Texas and Louisiana magazines.

Service Details

The basic idea of this rail-highway co-ordination system is to provide overnight service from all jobbing points in Texas to all local stations on the T. & P. in Texas, with a similar set-up and similar service for Louisiana. The T. & P. was a pioneer in fast overnight merchandise trains as well as in rail-highway co-ordination, and, on the basis of several years' experience in operating such trains, overnight service is now provided between points 400 miles and more distant from each other.

The trucks, however, serve many other uses. They have eliminated the necessity for loading large numbers of package cars to local stations, many of which were necessarily loaded light. A shuttle highway service between Dallas and Fort Worth has also eliminated the loading of many light package cars daily. In view of the commercial rivalry existing between Fort Worth and Dallas, it was necessary previously to load package cars daily from each of these points to many of the same local stations in order to provide the same service for shippers in both cities. By the use of trucks in this shuttle service, this duplication of light loads is eliminated, both cities are provided with the same service to all points, and with much faster service to most points.

Trucks are also used largely in taking care of shipments received late in the evening. At New Orleans, for example, the necessity for making connections with other railways on carload traffic requires the train that carries the merchandise to leave before the last freight is brought to the station. The T. & P. keeps its freight houses open late to suit the shippers' convenience and the freight that misses the train is sent by truck to Addis, La., across the river from Baton Rouge, which serves as a distribution point for the network of T. & P. branch lines in that territory. Trucking of freight between New Orleans and the T. & P. terminal yard at Gouldsboro across the Mississippi also saves many trips by the car float that were formerly necessary. The truck arrives at Addis some hours after the train, but still in time to make connections with the early morning trucks that radiate out of Addis to serve the branch line territory.

A somewhat similar service is provided between Shreveport and Alexandria. Several of the transport company's routes serve the intermediate territory. However, freight delivered late at Shreveport is loaded in a truck that runs over a new highway between those points. Since the highway traverses territory not served by T. & P. rails, no intermediate stops are made, the truck making a fast trip with no service stops to Alexandria, where the merchandise is transferred to the trucks operating out of that point.

The transport company is intended to serve the railway and its patrons, and the trucks are put to a wide variety of uses. On the branch serving the oil field territory between Monahans, Texas, and Lovington, N. M., for example, the trucks handle mail and express, giving three services in each direction daily, replacing the former rather irregular train service.

The mileage operated varies, but the maximum truck trip is 109 miles and the average trip under load is less than 75 miles. The T. & P. equipment is all modern and equipped with the latest safety devices, while the drivers are trained in careful driving, so that the accident prevention record has been an excellent one. A new shop and garage for servicing the equipment was put in service at Addis, La., on August 1, and similar shops, now being erected at Dallas, Texas, and Monahans, will be in service within the next few months.

Improved Service

Some idea of the improved service possible by the greater flexibility of the trucks may be gained from the following table, which gives a list of some of the outstanding improvements of the co-ordinated system as compared with the all-rail movement:

From	To	Hours Saved
New Orleans	Addis	13′ 30″
Addis	Port Allen	30′ 40″
Addis	Torras	32′ 45″
Addis	New Roads	33′ 15″
Addis	Cheneyville	32′ 10″
Addis	Le Compte	31′ 45″
Shreveport	Pleasant Hill	24′ 45″
Shreveport	Natchez	23′ 45″
Shreveport	Lachute	29′ 30″

Relative savings in time were made to more than 100 other points in Louisiana.

Reliability

One of the chief points in favor of the transport company as against other common motor carriers is its greater responsibility and reliability, co-ordinated as it is with the service of the parent railway. This was indicated in a recent survey made for the Louisiana commission of the comparative service at nearly 75 stations in that state.

The transport company had station facilities and an agent in 100 per cent of these stations, as compared with 21.9 per cent for the other common carrier truck lines. The transport company provided local pick-up and delivery at 94.5 per cent of the stations and the other carriers at only 21.9 per cent, while telephone service was available at 36.9 per cent, as compared with 13.7 per cent by the others. In addition, the transport company also has the financial responsibility of the parent railway behind it.

THE ELEMENTS OF RAILROADING most likely to appeal to the general public are outlined in the latest issue of "The Texaco Star," a publication of the Texas Company. The keynote article of the issue entitled "A New Viewpoint for the Future" has been prepared by John J. Pelley, president, Association of American Railroads. There follows a short history of 100 years of railroading, generously supplied with photographs of historic motive power and transportation methods. Further articles dealing with "hobby" trains, railroad labor, car and locomotive construction, modern equipment, famous passenger trains and model railroading complete the context. On the front and back covers of the publication appear four large "atmosphere" art-photographs.

Express Trucks Handle C. & D. Service

Canadian Pacific uses subsidiary in several cities for urban merchandise work

WITH a fleet of 103 new trucks in greater Montreal and in near-by cities, manned by intelligent operators and backed by an efficient organization, the Canadian Pacific has provided an increasingly popular merchandise service. This is done through a combination of high-speed freight trains and a highly developed local pick-up and delivery service operated by the newly formed cartage department, a branch of the Canadian Pacific Express Company. The service which has proved so popular in Montreal, Ottawa, Sherbrooke, Three Rivers and St. Hyacinthe, will be extended on January 1, 1938, to Toronto, London and Guelph, and to other stations on the system from time to time.

While high-speed freight trains helped add new shippers, intensive study of the subject showed that considerable improvement could be made in the local end of the service—the picking up of shipments from warehouses and the delivery of freight to the doors of the consignees. The principle of the proposed service as to provide thorough supervision over the local end of the service, to give the guarantee of Canadian Pacific service throughout the shipments, to have Canadian Pacific representatives calling on the shippers personally with the view of encouraging further business, and to do away with long delays in moving goods a few miles across a city by truck after it had taken only an overnight run to bring the goods 300 miles or more by train. The Canadian Pacific's aim in establishing the new service has been amply realized.

Truck Fleet Increased

First experiments were made in March of 1937 at Ottawa and at Sherbrooke, where freight transfer is also handled for the Quebec Central, a Canadian Pacific subsidiary. New trucks of special design were bought, six for Ottawa and two for Sherbrooke.

First experiments proving very satisfactory, it was decided to give the new service the severest possible test in the city of Montreal. The fleet engaged in this particular service was increased to 103—92 of them to serve Montreal, two to Three Rivers and one at St. Hyacinthe.

The service was inaugurated in Montreal on May 1, 1937, a corps of operators having been chosen and carefully drilled as to their duties. These men were uniformed in serviceable blue suits. They were assigned specified routes on a zoning plan to cover the scattered industrial and commercial districts of Montreal. All this is arranged by truck dispatchers, to whom each driver reports every half hour. In Montreal, 44 separate routes are operated, some with as many as four trucks covering the same route and several on which the drivers make two or three turnarounds. These routes are all within the city limits, the farthest distance being seven miles. The express company has, however, taken over three inter-city runs between Montreal and Highlands, 9 miles; Montreal East, 14 miles; and Montreal and St. Jerome, 40 miles.

Successful Service

How successful this service has been is best illustrated by the fact that merchandise traffic out of Montreal has shown an increase of 30 per cent since the operations were taken over. Meanwhile, as the result of the establishment of the zoning system, telephone calls from shippers asking for pick-up service have been reduced from the previous average of 290 per day to about half that number, permitting one switchboard to be taken out of the truck dispatcher's office.

As the new department grew in experience, the service naturally improved, until now it is working with the clock-work precision of train schedules. The route of each truck is operated so that the freight is brought in

The New Service Is Advertised in Both French and English in Quebec

Types of Modern Equipment Used in the New Service

to catch the fast Toronto merchandise train which leaves the Place Viger freight station in Montreal at 6:20 p. m. In the city service, calls are accepted and trucks dispatched until the last minute, and it is not unusual to see merchandise being loaded and cars locked when the train is actually in motion. The express company trucks also save the railway much trap car service by handling merchandise from the outlying stations to the concentration freight house at Place Viger.

The inbound fast train from Toronto arrives at 6:40 a. m., and the trucks are all scheduled to be loaded and on their way by 8 a. m., so that early morning delivery may be given to all locations in Montreal. On Monday morning, the delivery is much earlier. The fast trains are not operated on Saturday night, there being no need to get the merchandise on Sunday morning. Saturday's loadings are brought into Montreal on regular trains and the freight house crew begin unloading at 1 a. m., Monday morning, so that the trucks are on their way in time to deliver the merchandise as soon as the places of business open.

Equipment

The truck fleet includes a wide variety of makes, nearly all of which are of 2- to 3-ton capacity, open-top rack type, with removable sides and tailgates. There are several heavier units for special purposes, also closed vans for handling tobacco and similar commodities to prevent pilferage, but, in general, the relatively light trucks, with open tops and tarpaulin covers, have been found most satisfactory.

This type of equipment was chosen because of the previous experience of the express company in handling a large fleet of trucks on the hilly and narrow streets of Montreal. In actual operation, the greater speed and maneuverability of this type of truck has proved its worth. To service the trucks, a modern shop and garage has been built near the Place Viger freight house.

Service Features

The heavier trucks are used in the handling of carload traffic. For many years Canadian railways have carried a provision in their tariffs allowing for cartage delivery of carload freight at five cents per 100 lb. to companies not having industrial tracks on which the cars might be spotted. The express company trucks now handle this business which frequently runs as high as 40 truckloads per day.

One of the reasons for the increased business since the express company trucks have been in use is the greater solicitation activities on the part of young and intelligent express drivers who call in modern, neatly-painted equipment that is identified with the Canadian Pacific. In addition, they are neatly uniformed and familiar with transportation matters. Experience has proved that they supply an invaluable adjunct to the

Unloading Trucks at Place Viger Freight House in Montreal

regular solicitation force in securing merchandise traffic for the railway.

For the purposes of comparison, the express company took over the collection and delivery contract on exactly the same basis as that under which the independent cartage agents were operating. This provided for a sliding scale of rates, depending upon the tonnage and the distance it was handled. As soon, however, as sufficient time has elapsed to provide an accurate check and comparison of costs, this system may be changed and a flat rate charged to cover all the truck operations, which will simplify accounting materially.

German Expert Explains Truck-Rail Co-ordination

A DETAILED interpretation of German regulatory policies and the division of the transport field between railway and highway carriers forms a major part of an address entitled "The motorization of Germany and the Competition between railway and motor-car" delivered by Dr. Ernst Esch, professor of motor transport science at the University of Cologne, Germany, before the members of the Metropolitan section, Society of Automotive Engineers, on October 14, at the Hotel Roger Smith, New York. After speaking at length of recent developments in the German highway system and of the rapid rise in the use of road vehicles, Dr. Esch characterizes present-day German regulatory philosophy thus: "The limit to the principal of private initiative and its denial of the monopolization of national economy is to be found where the natural limitations of the country, its geographical, economic, political and national character require it; where the public services appear to be so overwhelming that it is not to be regarded as in the interests of the state to leave them to be carried out by private firms."

Pointing out that while, under this policy, *local* rail and highway traffic is subject to but limited state control, the speaker relates that the railways, since (as the German economist Friedrich List held) their importance lies largely in long distance traffic, have long been owned and operated by the state. In order that impartiality might be shown toward all forms of transport, it has become necessary for the government to regulate in like measure the long-haul services of the motor carriers. Such regulation, Dr. Esch interprets as the efforts of the state to keep the development of motor traffic "within limits that best serve the public interest, while avoiding the disadvantages inseparable from monopoly and consequent exclusion of competition."

Reviewing in brief the situation before the establishment of the Hitler regime, the speaker declares: "It was one of the mistakes of the pre-Hitler regime to permit the state railways to oppose the development of freight traffic by motor-truck by all the means in its power,—means which were not always compatible with business-like management. Special tariffs of all kinds below cost-price were offered to restrain business from wandering from the rail to the road. Preferences and rebates of every kind were offered to the senders of goods if they would only use the railway, whereas numerous disadvantages were threatened to forwarding agents who sent their customers' goods by road. The great advantages of the motor-truck as a means of increasing the transport of goods by rail were overlooked; one did not or would not see how it could replace the railway, would not see its advantages in local and long-distance transport, in goods-transport and works-transport, advantages which among other things it could place at the disposal of 38,000 districts in Germany which have no direct contact with the railway."

Dr. Esch further pointed out that the tariff system of the German State Railways at that time, as in America, levied high rates on high value shipments in order to keep the rates on bulk essentials at an economic level. Thus the revenue from the three highest classes of shipments accounted for about 38.5 per cent of the total railway income, while the volume shipped under these class ratings comprised only 18.3 per cent of the goods carried. It was this high revenue traffic which the motor track took from the railways before adequate regulation was set up.

In seeking to end these conditions in 1933, Dr. Esch stated, the government was faced with a dilemma. On the one hand it was necessary that the state-owned railway system with its 700,000 employees and large capital structure be preserved as "an instrument for mass-transportation and long-distance transportation." On the other hand, the motor carrier, with its "area-advantage" and mobility deserved encouragement. To achieve co-ordination, the following measures were taken by the government:

(1) The State Motor Highways Act of 1933 links the new highway-building corporation or "Reichsautobahnen" with the German State Railways and gives the new corporation the right to construct and manage the new motor roads. The general lines are laid down by the General Inspector of German Roads in collaboration with the state railways. The executives of the Reichsautobahn Corporation are the directors and the Board of Control, who must both be in agreement on all questions put before them. The General Inspector of the German State Railways and the General Inspector of Roads are appointed by the Chancellor. These regulations are a guarantee that the motor highways will be treated on the same terms as the railways.

(2) The Passenger Transport Act of 1934 provides that an official permit be obtained for all common carrier services, the granting of which depends, among other factors, upon proof that "there is a real demand for the intended service," ascertained after a hearing of opinions rendered by representatives of the state railways and the postal system.

(3) The Act of June, 1935, sets up a statutory corporation, with executive powers, called the "Reichskraftwagenbetriebsverband" (council of motor vehicle operators), which is directly under the control of the Minister of Transport. Today it includes 8,000 owners of 12,600 freight vehicles, comprising all long-distance truck operators. The duties of this organization include the general encouragement of long distance freight traffic, the erection of joint shop and station facilities, the establishment of uniform rates, the insurance of vehicles and freight at established standards, and the regulation of hours and conditions of service. The tariff power, Dr. Esch claims, is the most controversial one. The rates for long-distance motor freight hauls must be drawn up in collaboration with the German State Railways and must have the approval of the Ministry of Transport. If no agreement can be reached between the Railway and the motor truck organization, the Minister of Transport may set the rates. The speaker takes care to point out that, since the latter is also the director-general of the state railway system, this arrangement "amounts to the establishment of the tariff by the railways."

From Dr. Esch's further remarks of motor truck tariffs it may be gathered, in brief, that at present the motor vehicles in long-haul traffic are limited to carrying

the higher tariff traffic only and that the greater part even of these shipments are rated according to scales incorporated from the railway tariff sheet. This condition is being attacked by the motor operators and proposed changes in policy are seriously considered.

After analyzing the suggestion that the truck group be permitted to set up tariffs independent of the railway rates and based upon the special needs and costs of the industry and other proposals extending the range of highway traffic, the speaker admits that "there is much to be said on both sides."

The remainder of the address was concerned with the excursions of the state railways directly into the motor transport field, relating that the system owns 2,400 motor vehicles, in addition to thousands of trucks operated under contract. Pick-up and delivery service, it is pointed out, has been attacked by the highway operators as being unduly competitive with local trucking concerns.

In closing, while repeating that the railways will be the chief means of German transport for many years to come, Dr. Esch is fully cognizant that the "undeniable special advantages of motor transport will secure for it a larger and larger "slice" of traffic. The problem, he declares, is to see that this larger share of the total transportation is secured without damage to German economic life or to the German people."

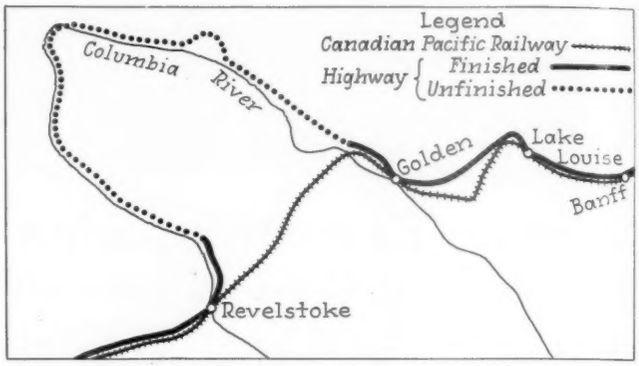
Joseph B. Eastman, member of the Interstate Commerce Commission, who was asked to comment upon Dr. Esch's address, in his introductory remarks gave expression to the wish that the members of the I. C. C. might be granted sabbatical years, upon condition that they spend the year in research, preferably in a foreign country. As he put it: "One of the troubles with work on the commission is that there is so much of it which requires constant and unceasing attention that it tends to have a narrowing effect. There is much too little opportunity for thought on the broader questions of transportation policy, which are far more important than the great majority of the matters to which attention is perforce given, or for acquaintance with what others are thinking or doing, especially in other countries. My notion, however, is probably too advanced for present practical use, and no doubt was generated by anticipation of the great pleasure that I myself would derive from such a sabbatical year."

In comparing German and American motor transport policies, Commissioner Eastman declared that while the early history of highway regulation was entirely different, in that motor transport in the United States was given almost free rein in its development, the means of regulation in the two countries are "beginning to converge toward a common end." He then pointed out some of the similarities between the Federal Motor Carrier Act and German regulatory practices.

With reference to tariffs, Mr. Eastman was of the opinion that developments in the trucking field, especially in the opportunity afforded industries to transport their own goods, are tending to adjust transportation rates to the basis of costs, excluding competition which "cannot within broad limits be economically justified."

C. P. Auto-Ferry Service

THE Canadian Pacific operated a successful auto-ferry service last summer between Revelstoke, B. C., and Golden, as indicated on the accompanying map. Special automobile cars were attached to regular passenger trains between these points from June 15 to September 16, for the purpose of ferrying automobiles across the gap in the transcontinental highway over the Selkirk mountains. The train journey was made in daylight and the automobiles were available at either end immediately after the arrival of the



The Canadian Pacific Bridges the Gap in the Transcontinental Highway by Auto-Ferry Service

train which carried them. An hour and 30 min. advance notice to the C. P. agent was required at the shipping point.

Each automobile had to be accompanied by at least one passenger holding a one-way ticket costing $3.65. The rates for the carriage of the automobiles themselves ranged from $12.50 to $17.50, depending upon the wheelbase. Passenger trailers in actual use for touring purposes were also carried at a rate of from $7 up, depending upon their length, providing they did not exceed 25 ft. in length, 6 ft. 6 in. in height and 6 ft. 10 in. in width.

Columbia Terminals to Operate M. P. Trucks

AT midnight on October 16, the Columbia Terminals Company of St. Louis took over the co-ordinated trucking operations of the Missouri Pacific in Kansas, Missouri and Nebraska, in accordance with a contract that was awarded to Columbia as the result of competitive bids opened on September 15.

The co-ordinated trucking system of the Missouri Pacific, which was described in detail in the Motor Transport Section of the *Railway Age* of September 25, has been operated under contract for several years by the Blake Transport Company. Within the past year it has been materially broadened in scope, while the daily truck route mileage has been more than doubled. The present system provides for numerous inter-city truck routes paralleling the railway line, which are used in picking up freight at local stations for consolidation at specified concentration points, and delivering merchandise that has arrived by rail at such concentration points to the local stations, thus avoiding train stops and providing a more flexible and faster service. These trucks also serve branch lines and secondary main lines, and, in several instances, the trucks are operated cross-country between one main line and another, or between the main line and branch lines, in order to provide for better service.

Maps of the highway operations of the Missouri Pacific appeared in connection with the article above referred to. The Columbia Terminals will continue the same opera-

tions with a fleet of new trucks bearing the N. P. emblem, but with certain changes in operating methods which will be described in detail in the Motor Transport Section after such changes have been made effective.

Columbia Terminals Operations

This is the second rail-highway co-ordination to be taken over by the Columbia company recently, the other being an experimental truck line started on October 7 between Alton, Ill., and East St. Louis, serving all intermediate stations, for the Cleveland, Cincinnati, Chicago & St. Louis. These are the first ventures of the Columbia Terminals Company in the inter-city rail-highway co-ordination field, although that company has handled the merchandise exchange between the east and west bank lines in St. Louis for many decades, and, in recent years, has handled pick-up and delivery service for the railways there. Under the l.c.l. transfer system, which was started in the days of horse-drawn vehicles, much time and expense is saved in effecting the interchange between the eastern and western lines entering the St. Louis terminals by trucking the freight between St. Louis and East St. Louis, instead of handling it across the bridges in trap cars. These operations were described in detail in the Motor Transport Section of the *Railway Age* of August 22, 1936. In addition, the Columbia Terminals Company owns and operates the Columbia Transfer, at Kansas City, which handles pick-up and delivery service for all lines entering that point.

While the operations referred to above are the first ventures of the Columbia Terminals into inter-city trucking, the company established a research department on the first of this year to go into all details of this type of rail-highway co-ordination, both as to operations and as to the involved and complicated legal procedures necessary in obtaining permits under the Motor Carrier Act.

Auto-Railer Locomotive

AN E-2 locomotive is the latest development in auto-railer equipment. This vehicle, manufactured by the Evans Products Company, with body by Baker-Raulang Company, is designed for switching, short haul and branch line operations. It is powered by a 125 hp. automotive gasoline engine. Four flanged rubber-cushioned, steel pilot wheels are employed, while the drive is entirely through four pneumatic-tired front and rear wheels. The pilot wheels are retractable, by means of an electric jack, when it is desired to use the vehicle on the highway.

The new unit has four-wheel, hydraulic, air-actuated brakes; five speeds forward and reverse, with equal speed in either direction; all-steel body; 30-in. wide sliding doors on each side; safety glass throughout; Evans heating and ventilation system; grab handles and steps; foot boards at each end; and railing and rear-view mirrors. The driving compartment is large enough to hold seven men, in addition to the operator. The new unit is of streamlined design and sturdy construction. It is equipped with front and rear headlights, and railway classification lamps, with a choice of either green, red or clear lights for front, rear or side illumination from each lamp.

Praises Restriction of Motor Affiliates

RECENT decisions of the Interstate Commerce Commission restricting railroad operation of highway carriers to routes parallel to individual railroad right-of-way, between stations directly served by rail operation, are held to be favorable to the railroad carriers themselves in the long run, in an article by Donald E. Church appearing in a recent issue of the Annalist (New York). Making specific reference to the commission's decision granting the Pennsylvania permission to assume control of Barker Motor Freight, Inc., through its subsidiary, Pennsylvania Truck Lines, Inc., (reported in the *Railway Age* for March 13, page 459) he points out that the approval of purchase was qualified by an order specifying that the railroad dispose of the existing routes of the highway operator not "parallel and adjacent" to its rail lines. This order, Mr. Church considers to be an important precedent which, while it appears to be anti-railroad at first glance, will work to the advantage of rail carriers in the long run.

The author bases this assertion upon the belief that this restriction of a railroad subsidiary to operation on routes parallel to the rail lines of that particular carrier will prevent the rise of a new kind of inter-railroad

The New Auto-Railer Demonstrates Its Power

competition through invasion of each others' traffic fields by motor transport affiliates. Such competition would lead to the "feverish purchase" of motor carriers by all the roads in order to defend invaded railroad territories, at great cost and to no ultimate common advantage. Furthermore, off-rail truck operation by the main-line roads would constitute the "death sentence" of the short lines and connecting roads who rely upon interchange through traffic for the major portion of their revenues.

Schools for Railway Motor Drivers

FOUR training schools have been established by the London, Midland & Scottish for prospective drivers of highway motor vehicles operated by that railway. Attendance is compulsory and instruction is given by expert instructors, by means of lectures and practical demonstrations, on the principles of safety, good road manners, management of controls, and the economical and efficient handling of the vehicles. By the use of models of a section of the highway, complete with crossings, signal lights and various types of vehicles, the new driver is taught how to avoid accidents, how to correct skids, and how to act in emergencies, and is given practical training on actual vehicles on an outdoor training ground before going on the highway.

French Plan Co-ordination

PLANS for the co-ordination of all forms of transport in France, with special regard to motor carrier regulation and restriction, are in preparation by a "Central Co-ordination Committee" as a "follow-up" of the unification of the main line railways under government control, effective January 1, 1938, summarized in the *Railway Age* for September 4. Still in the "paper" stage, the plan incorporates four guiding principles: (1) The greater part of the work in connection with regulation of local carriers should be performed by technical committees already set up in the various "departments" of the country. (2) About 25 per cent of the increased funds for transport matters accruing to the departments by reason of recently enacted fiscal legislation should be devoted to the reorganization of transportation services, control of competition not in the public interest, and elimination of duplicate transport facilities. (3) The departmental technical committees should, in co-operation with railway authorities, substitute bus services for uneconomical light-traffic passenger railway routes. (4) Competition with the railways by long haul truck operators should be controlled by heavy taxation of the present small independent carriers with the aim of forcing their consolidation into associations or large systems able to fix rates and designate routes not unduly competitive to the rail carriers.

National Trailways Grows

FORMED less than two years ago, the National Trailways system, consisting largely of railway subsidiary coach operating companies, has shown a rapid growth, as reported in the Motor Transport Section from time to time. With the companies recently taken into the system, it now comprises coach operations totaling 32,201 route miles, as follows:

Company	Route Miles
Santa Fe Trail System	10,840
Burlington Transportation Company	6,200
Missouri Pacific Transportation Company	4,925
Safeway Lines	2,044
Frank Marx Coach Company	1,906
Rio Grande Motorways	1,386
Missouri, Kansas & Oklahoma Lines	922
Dixie-Sunshine Bus Lines	658
Panhandle Trailways	624
Denver-Salt Lake-Pacific Stages	542
Lincoln Trails System	510
Central Ontario Bus Lines	476
Peoria-Rockford Bus Company	417
Windsor-Chatham-London Coach Lines	274
Denver-Colorado Springs-Pueblo Motorway	250
Boston, Worcester & New York Railway	227

The New St. Louis Station of National Trailways Is Typical of the Improved Terminals

NEWS

Shoup Decries "Penny Wisdom"

Co-ordination savings dear if price is end of healthy railroad rivalry

In an address before the Western Railway Club, Chicago, on Monday evening, October 18, Paul Shoup discussed the condition confronting the railways today and the causes therefor and then pleaded for a change in the public attitude towards the railways, speaking in part as follows:

"I, for one, am tired of this continued dissection of the railroads to find out what is the matter with them, when the whole problem they have is one of not taking in enough dollars compared with those they are obliged to pay out. Out of our experience with the Railway Emergency Transportation Act we developed a public education of great value; and that is, the difficulty of establishing theoretical economies and doubt as to their value if we did establish them. The employees who would be sacrificed rebelled; politically educated, their friends supported them in that rebellion.

"There has been much futile talk among those who ought to know better about the wastefulness of competitive operations and the maintenance of overbuilt facilities. No doubt, some further co-ordination and co-operation could be effected that would make some modest savings; but dearly bought if at the expense of progress and in no way a lifesaver. Of far greater importance is the fact that they should endeavor to increase, better and cheapen their service; not consolidate it, make it static, subject it to inertia.

"Let us suppose instead that the public policy recognizes the justice and practicability of our view; that instead of discussing the service and facilities we could abandon, the talk should be of an increased and improved service; that instead of speaking of the railroad industry as if it were something confined to the hospital and in need of the surgeon's attention, we recognize it as a great and powerful force throughout the country merely awaiting intelligent treatment to render a greater service than it is giving now; that instead of penny-wise emphasizing the so-called waste of competition there should be an emphasis upon constructive rivalry with some reward, even though it is but a laurel wreath, for accomplishment; that instead of dealing with this industry as a necessary evil to be borne with, it should be looked upon as a great agency in promoting material human progress in this country.

"And then suppose that instead of saying to the stockholders and the bondholders of the country that they should reorganize these railroads and accept great losses as if they had failed in a public service, there should be a recognition of the vital and essential transportation their money has made possible from one end of this country to the other; and should be told that where usefully expended and in property devoted to public service, they are entitled to have their property rescued, its value recognized, and a fair earning return made possible thereon.

"And then suppose that at this time when the railroads go to Washington and ask for increased rates to meet the obligations that have been imposed upon them and beyond their control but responsive to public power and public opinion, there should be back of this application a strong, organized public sentiment, and that the Interstate Commerce Commission found itself able to grant quickly and wholeheartedly, backed up by public support, the higher rates for the railroads that are necessary.

"Do you not suppose then that an impulse of confidence would run lightning-like through the business activities of this country; those who are employed feel safer in their jobs, those who would sell railroads material would find the needed market; the investors of all kinds given new assurance of safety? And then along with this, such change in the atmosphere of public policy as would lead to the conclusion that an enlightened and considerate treatment of the transportation system of the country would continue. Do you not believe that then a much needed spirit of confidence would at this critical time help every business activity; the employment of both labor and capital, large or small, throughout the country?

"All the material advance of mankind has occurred through a continuing increase in the interchange of goods and services in volume and variety among mankind. There is no end to progress. This country has gone forward in every decade. And I hope for such public policy as will make tomorrow's transportation problems those that come with expansion and not contraction; those that appear under a constructive policy looking toward a better, a more varied and wider service, and ultimately, at lower rates, so that the railroads in every village, along every country side, in every city, shall stand as the foremost exponents of progress."

Eastman Pleads For Co-ordination

Tells short lines that Sec. 4 change is "will-of-wisp"—Wants cost rates

Interstate Commerce Commissioner Joseph B. Eastman, in an address before the American Short Line Railroad Association at the Hotel Blackstone in Chicago on October 18, reasserted his belief that the only way that the railroads of the country could save themselves was by a greater co-ordination of their activities. He called railroad efforts to secure the repeal of the long-and-short-haul clause "the pursuit of a will-of-the-wisp," adding that "they are, because of competition in their own ranks, neglecting the opportunities to save many millions of dollars through greater co-ordination of their operations." Commissioner Eastman also pointed out that in Chicago the opportunities for economies and better service in the unification of freight and passenger terminals have been studied several times both by public authorities and by the railroads themselves, and in every instance with the conclusion that much could be saved with no impairment but an actual improvement in service. He also said that he felt there was much public sentiment in favor of such a unification plan. He deplored the fact that nothing is done about such a proposal.

Mr. Eastman went on to say that he was convinced that the "Government has a great responsibility and duty in this situation to preserve order and protect our transportation system against the internal disorders which seem likely to sap its strength and destroy its effectiveness." "What other authority," he asked, "is there to do the job?"

Mr. Eastman does not believe that he has the solution to the transportation problem, for he reminds his audience that this "is a task which calls for so much insight and far-seeing wisdom and intensive labor that it is difficult to be sure what should be done."

The remainder of Mr. Eastman's speech was devoted to the throwing out of what he terms "a few suggestions which may furnish food for thought." First of all, he feels that it would be a good thing if the railroads would develop a cost-finding system so that they might know how much it costs them to do a particular transportation job. He says that the railroads have always scorned such cost-finding systems

(*Continued on page 589*)

33 R.C.C. Debtors Have Paid in Full

Annual report of President Buckland gives status of loan fund

Of the 53 railroads to which loans were made by the Railroad Credit Corporation, in order to meet fixed interest obligations, 33 have paid in full, according to a report submitted on October 19 by President E. G. Buckland, at R. C. C.'s sixth annual stock-holders' meeting in Washington. R. C. C. was formed in the latter part of 1931 by 432 roads to administer the Marshalling and Distributing Plan, under which the proceeds from an emergency increase in freight rates, allowed by the Interstate Commerce Commission, were pooled and used solely for the purpose of making loans to carriers in need of help in meeting fixed interest obligations.

Loans made to the 53 roads, according to the report, totaled $73,691,368, of which $52,542,029 have been repaid. The outstanding loans of the remaining 20 roads total $21,149,339. Of these 20 roads, 17 are now in the hands of the courts. The outstanding balance of loans made to those 17 roads totals $20,410,598.

"Reorganization plans," the report said, "have been prepared by the several carriers involved and hearings have been, and are being held thereon, but none has progressed to the point where an early adjustment or settlement seems likely. Your Corporation is taking an active part in all of these proceedings, looking to the protection of its position and it is confidently hoped that such participation will reduce to a minimum the losses which may result in the final settlement of such accounts."

In the 15 months' period ended on March 31, 1933, a total of $75,393,237 was pooled with R. C. C. Of that amount, $55,133,652, or 75 per cent, has been repaid to the participating carriers as a result of loan repayments and collections of interest.

"As provided by the terms of the Marshalling and Distributing Plan, 1931," Mr. Buckland said in the report, "your Corporation has continued during the fiscal year ended September 30, 1937, to liquidate its affairs as rapidly as possible in the light of existing circumstances. During the year the total of outstanding loans has been reduced by $7,232,829 to the year-end balance of $21,149,339. Nine additional liquidating distributions were made during the year. These aggregated 10 per cent of the original net contributed fund, or $7,331,750."

At the October 19 stockholders' meeting all members of the board of directors were re-elected for the coming year.

C. N. Receives First of New Coach Group

Two new air-conditioned coaches, the first of 50 to be placed in service by the Canadian National, were placed on exhibition at Bonaventure station, Montreal, Que., on October 15, and are now being shown at various points on the system, including Toronto, Ont., Winnipeg, Man., and Vancouver, B. C. The new cars, designed by Canadian National engineers and built by the Canadian Car & Foundry Company, Ltd., follow the lines of the latest car-building developments in the United States. They are constructed of light-alloy steels, are air-conditioned and provide the latest in lighting and seating for the "passenger at the head end," as he is designated by C. W. Johnston, general passenger traffic manager of the road.

Bombing Trial Postponed

The trial of 41 men under indictment for alleged railroad bombing activities in Illinois has been postponed until November 15 by Federal Judge Charles G. Briggle.

R. I. Seeks Truck Line

The Rock Island Motor Transit Company, affiliate of the Chicago, Rock Island & Pacific, has applied to the Interstate Commerce Commission for authority to acquire the property and operating rights of the White Line Motor Freight Company and the White Line Trucking Company, between Chicago and Omaha, Nebr.

Southern Timetable Lists Football Games

A complete schedule of southern college football games to be played this season appears on the back cover page of the current system timetable of the Southern. The dates, teams and fields are arranged in order, topped off by an action photograph of one of the 1936 games.

2¼-Cents Round-Trip Pullman Fares in West and South

Round-trip Pullman fares on Western and Southern railroads were increased from two cents to two and one-quarter cents a mile on October 16, the effective date of the recently-filed tariff which was not suspended by the Interstate Commerce Commission.

Roomette Car Assigned to the "Chief"

The Pullman Company's roomette car, which has been operated experimentally on several railroads in the East, was assigned to the "Chief" of the Atchison, Topeka & Santa Fe on October 18 for a test period. A complete line of these light-weight steel cars has been ordered by the Santa Fe and will be placed in regular service on the "Chief" and the "Super Chief" as rapidly as they are delivered.

B.R.T. Loses on Southeastern Greyhound Lines

The Brotherhood of Railroad Trainmen lost to the Consolidated Coach Operators in a National Labor Relations Board election held recently at Lexington, Ky., among employees of the Southeastern Greyhound Lines. Consolidated received 131 votes as against 69 for B. R. T. The latter was recently chosen as the exclusive bargaining agency for bus drivers of nine constituent companies of the Greyhound system, as announced in the *Railway Age* of September 25.

Labor Wants Study of Driver Fatigue

Urges I.C.C. to delay its motor carrier hours of service rules

Promulgation by the Interstate Commerce Commission of any final rules covering maximum hours of service for motor carrier employees should await the findings of a scientific study of the effects of driver fatigue on safety, according to counsel for various labor organizations who participated in this week's oral arguments before the commission's Division 5 at Washington, D. C., on the proposed report of Examiner R. W. Snow in Ex Parte MC2. Attacking the Snow recommendations, which, as reported in the *Railway Age* of July 24, would establish flexible hours of service regulations, providing as maxima a 60-hour week or not more than 70 hours in any period of eight consecutive days with limits of 15 hours "on duty" and 12 hours "at work" in any period of 24 consecutive hours, the labor representatives first expressed a willingness to forego any regulation of hours until the results of the proposed study were in hand. Later, however, they "clarified" their position and favored, pending the study, temporary regulations calling for a daily limit of 10 hours at work and a weekly limit of 60 hours.

Counsel for management interests, including the American Trucking Associations, the American Transit Association and the National Association of Bus Operators, argued generally for the adoption by the commission of Examiner Snow's proposed report and regulations. Representatives of state commissions favored a reopening of the case for the taking of additional testimony.

Some discussion arose as to the extent of the commission's authority to regulate motor carrier hours of service from standpoints other than safety. F. A. Tobin, representing the International Brotherhood of Chauffeurs, Teamsters & Stablemen, first raised the question when he expressed his desire to know whether the I.C.C. thinks it has power to consider other aspects of the problem; or, he asked, should the question be taken up in Congress in connection with the pending wages and hours bill? Commissioners Eastman and Rogers manifested interest in this phase of the arguments.

The fatigue study for which labor counsel contended would be of the type which Examiner Snow said the commission had under consideration at the time of his proposed report's publication. The examiner then went on to express the hope that data developed in such a study would be helpful, but he thought it would be unwise meanwhile to withhold the issuance of regulations. It was his thought in this connection that the case could be reopened for adjustment of the regulations in the light of the study's findings. The labor representatives, however, expressed fear that the Snow proposals once adopted would be difficult to change; and they were gen-

erally confident that a scientific study would produce findings favoring lower maxima.

Railroad labor was represented by T. J. McGrath, who appeared on behalf of the four train service brotherhoods. While he subscribed to the idea of delay pending the fatigue study, Mr. McGrath spent much of his time in an attack on the Snow proposal to give general sanction to the sleeper cab. Noting that "time on duty" as proposed by the examiner would exclude all time spent in a sleeper cab, Mr. McGrath was confident that the commission was not going to couple any such finding with a general endorsement of the sleeper cab. The latter, he conceded, should perhaps be allowed under special conditions, but he would have the nature of the cargo—not convenience of the trucking company or competition—determine such conditions. Mr. McGrath discounted the testimony of drivers who said that they got adequate rest in the sleeper cab, claiming that the contrary contention of driver-witnesses produced by the unions should bear out "the common sense judgment of any one." Also, he added, the sleeper cab would militate against enforcement, since the two men on a truck can fix up their "on duty" records to suit their own convenience; and it could be employed on one-man trucks, making a "gypsy" of the driver. Under the proposed rules, Mr. McGrath went on, two men with a sleeper cab could remain on duty 120 hours continuously; and this, he added, is not impossible in view of the trucking industry's record of being "somewhat of a sweatshop."

Mr. McGrath closed with a plea for a provision requiring drivers to keep individual trip sheets. Only in this way, he said, can enforcement be effective; and he cited examples from the experience of states to support the contention. Commissioner Rogers was interested in Mr. McGrath's suggestion that state authorities might aid in enforcement. He wanted to know how the commission could use state enforcement officers—if it could supplement its own highway force by delegating the same powers to state officers. Mr. McGrath thought this could be done.

T. P. O'Brien, representing the International Association of Teamsters, disputed Examiner Snow's contention that "driving a truck or bus cannot be classed as hard, manual labor." Despite technical improvements, he said, driving still requires a lot of effort and energy; and drivers must be young, aggressive men. Hopping on and off "one of them animals" and steering it with a 15-ton load on its tail is a tough job, Mr. O'Brien said, as also is the loading and unloading which some non-union drivers are required to do. He charged that "A. T. A." witnesses offering testimony to the contrary had been coached; and, asked by American Transit Association counsel to state that "A. T. A." meant American Trucking Associations, he laughingly replied, "both." Mr. O'Brien referred to the eight-hour-day agreement which his organization has had since 1920 with the Railway Express Agency and its predecessors; and wondered where R. E. A. drivers would be in renewal negotiations if the commission allowed R. E. A. competitors to operate under the more liberal Snow proposals.

Asked by Commissioner Rogers if low hours-of-service limits would not force truck rates up toward rail rates, thus bringing losses of traffic to the highway carriers, Mr. O'Brien replied that the truck rates wouldn't have to go as high as rail rates to pay for an eight-hour day. He had previously said that the matter of increasing operating costs was a management problem—not his; and one which truck operators were free to take up with the commission in petitions for increases in rates.

Other arguments on the labor side included those of representatives of the American Association of Street & Electric Railway & Motor Coach Employees; and the International Association of Machinists.

N. Y. Traffic Women Hear of I.C.C. Reorganization Plan

Harry C. Ames, of Washington, D. C., attorney and counsellor-at-law, formerly employed by the Interstate Commerce Commission, was the guest speaker before more than 100 women at the October dinner-meeting of the Women's Traffic Club of Greater New York, held in the George Washington Hotel, New York, on October 19. His subject was "Government Reorganization Plans as They Affect the Interstate Commerce Commission."

B. R. T. Withdraws Complaint

Acting upon the petition of A. F. Whitney, president of the Brotherhood of Railroad Trainmen, for leave to withdraw the complaint, the Interstate Commerce Commission has dismissed the proceeding wherein the Brotherhood sought an order requiring improved seating accommodations for head brakemen on freight trains. This is the agreed-upon follow through from the settlement of this controversy, as announced in the joint statement issued last week by Mr. Whitney and J. J. Pelley, president of the Association of American Railroads and reported in the *Railway Age* of October 16, page 542.

City Passenger Agents Meet at St. Louis

The fifteenth annual meeting of the National Association of City Passenger Agents was held at the Hotel Statler, St. Louis, Mo., on October 12. Probable fare increases and co-ordination of passenger agent activities were the principal subjects discussed. Officers elected for the ensuing year are: President, Frank M. Adams, Jr., city passenger agent of the Baltimore & Ohio at New York; vice-presidents, Evans Carleton, representative of the Pennsylvania at Kansas City, and Robert Voightman, passenger agent of the Chicago, Rock Island & Pacific at Chicago; and secretary-treasurer, re-elected, C. A. Thurber, representative of the Lehigh Valley at Buffalo, N. Y.

Status of Crossing Program

The latest statement showing the current status of United States works program grade crossing projects reveals that on September 30, work had been completed on 1,468 separations, 269 reconstruction jobs and 320 crossing protection projects. These cost a total of $123,155,101 of which $120,761,189 came from works program funds. At the same time there were under construction 465 separations, 90 reconstruction jobs and 357 protection projects for which works program funds will supply $61,707,904 of the $63,609,387 estimated total cost. Remaining projects approved for construction are expected to cost $7,967,414 of which works program funds will supply $7,440,797; these include 94 separations, 15 reconstruction jobs and 406 protection projects.

Rock Island Places the Sixth "Rocket" in Service

The sixth streamlined "Rocket" train of the Chicago, Rock Island & Pacific was placed in service between Kansas City, Mo., and Denver, Col., on October 18. This train will leave Kansas City on Monday, Wednesday and Friday at 9:30 a.m., central time, and will arrive in Denver at 8 p.m., mountain time. It will return from Denver on Tuesday, Thursday and Saturday, leaving at 8:30 a.m., mountain time, and arriving in Kansas City at 8:40 p.m., central time. Connecting service from Limon, Col., to Colorado Springs, will be provided by a Diesel coach which will leave Limon at 6:30 p.m., arrive in Colorado Springs at 8:08 p.m., leave Colorado Springs at 8:15 a.m. and arrive at Limon at 10 a.m.

September Gross 0.6 Per Cent Above 1936

Preliminary reports from 92 Class I railroads, representing 82.6 per cent of total operating revenues, made public today by the Association of American Railroads, show that those roads, in September, had estimated operating revenues amounting to $296,716,259 compared with $295,022,415 in the same month of 1936 and $383,158,982 in the same month of 1930. This September, gross was 0.6 per cent above that for September, 1936, but 22.6 per cent below September, 1930.

Freight revenues of the 92 roads in September, amounted to $239,251,927 compared with $239,668,087 in September, 1936, and $298,747,974 in September, 1930—0.2 per cent below the former, and 19.9 per cent below the latter. Passenger revenues totaled $32,809,960, 6.6 per cent above September, 1936's $30,773,165, but 34.7 per cent below September, 1930's $50,247,085.

President Decrees End of RFC and PWA

With the announcement of President Roosevelt on October 18, that lending powers of the Reconstruction Finance Corporation and the Public Works Administration would be brought to an immediate conclusion, it appears that these two government agencies will no longer be able to make new loans to railroads. During the depression both agencies made large loans to the carriers, but the past year has seen very few new ones granted. As of August 31, the balance sheet of the RFC showed disbursements to railroads (includ-

ing receivers) of $532,126,239 and repayments of $180,271,228. It is not known at the present time whether or not the President's order will affect commitments already made to certain carriers which are counting on the RFC's help in putting through their refinancing plans. Presumably it will not, but it is thought that other carriers which are in the process of reorganization and had planned on asking the RFC for help will be barred from doing so.

Waterway Advocate Charges Carriers Block Jersey Canal

The New Jersey carriers are accused of a conspiracy to delay completion of the Miami-Boston inland waterway, by reason of their efforts to block construction of the proposed trans-Jersey canal, in a speech delivered at the opening of the 30th annual convention of the Atlantic Deeper Waterways Association, on October 15, in Baltimore, Md., by J. Hampton Moore, president of the association, Philadelphia, Pa. Pointing out that the New Jersey canal, the only "distressing fly in the ointment," is the one necessary link to complete the 1,800-mile coastal waterway, Mr. Moore, who, as mayor of Philadelphia for two terms, long fought for the north-south inland water route, charged the New Jersey railroads of delaying this final step in the waterway group's program. These carriers, he stated, have opposed the project on the grounds that it is "unnecessary and improvident," contending that shipping costs over the route would be prohibitive. These statements Mr. Moore ridiculed, declaring that water transportation is conceded to be the cheapest of all forms and that its rates are generally far below those of the rail carriers.

1936 Earnings of Water Carriers Reporting to I.C.C.

The Interstate Commerce Commission's Bureau of Statistics has issued for the year ended December 31, 1936, a compilation of selected financial and operating statistics of carriers by water reporting to the commission. The data, it is pointed out, "do not give a survey of all water borne commerce in the United States" since the I.C.C. has jurisdiction over only water carriers with railroad affiliations.

In 1936 a total of 102 water carriers filed reports with the commission, as compared with 110 in 1935. Of last year's total, 46 were operating along the Atlantic and Gulf coasts, 21 on the Great Lakes, 10 on the Mississippi river and its tributaries and 25 along the Pacific coast. All of these groups reported for 1936 total operating revenues of $102,814,232, an increase of $7,733,046 over 1935's $95,081,186. The composite net income for 1936 was $1,103,390, as compared with the deficit of $259,075 for the previous year. Only the Great Lakes group reported a deficit for 1936, its net loss amounting to $1,090,424; in the previous year this group and the Pacific coast group were deficit reporters.

Car Men Elect Officers

At the annual meeting of the Car Foremen's Association of Chicago held at the LaSalle Hotel, Chicago, October 15, the following officers were elected for the ensuing year: President, F. A. Shoulty, general car foreman, Chicago, Milwaukee, St. Paul & Pacific, Chicago; first vice-president, P. B. Rogers, car shop superintendent, Atchison, Topeka & Santa Fe, Chicago; second vice-president, W. J. Healion, superintendent of shops, North American Car Corporation, Blue Island, Ill.; treasurer, C. J. Nelson, superintendent, Chicago Car Interchange Bureau, Chicago; secretary, G. K. Oliver, assistant passenger car foreman, Baltimore & Ohio Chicago Terminal, Chicago.

The new board of directors consists of: W. Snell, Chicago, Milwaukee, St. Paul & Pacific; F. L. Kartheiser, Chicago, Burlington & Quincy; A. W. Berger, Chicago & North Western; J. C. Shreeve, Elgin, Joliet & Eastern; C. W. Broo, New York, Chicago & St. Louis; G. C. Christy, Illinois Central; F. R. Callahan, Pullman Company; J. S. Acworth, General American Transportation Corporation; R. R. Hawk, Wilson Car Lines; A. E. Smith, Union Tank Car Corporation; Karl Milar, Milar & Company; W. J. Demmert, Griffin Wheel Company.

Economist Warns N. & W. Employees of Government Ownership

That "the threat to continuance of the railroads as private enterprise is real" is the thesis of a speech delivered by Mark M. Jones, of New York, vice-president, Transportation Association of America, and economist, before Norfolk & Western employees at their annual Better Service Conference in Roanoke, Va., on October 15. After analyzing the dangers of current political and economic tendencies and tying them definitely to the prospects of rail transport, the speaker declared that the employees of the roads can do more to prevent such impending governmental control than "any other single factor in the situation," closing with the appeal: "Officially and personally you must address yourselves to safeguarding the public interest as well as your own interest in our system."

Other items on the program of the conference, which was attended by over 350 employees of the road from five states, included the annual "family dinner," committee reports, and addresses by J. E. Crawford, vice-president in charge of operation; George Dunglinson, Jr., assistant vice-president in charge of traffic; and R. H. Smith, general manager.

Freight Car Loading

Revenue freight car loading for the week ended October 9, totaled 815,122 cars, a decrease of 32,123 cars or 3.8 per cent under the preceding week, a decrease of 5,448 cars 0.7 per cent under the corresponding week in 1936, but an increase of 80,968 cars or 11 per cent above the same week in 1935. It was, however, a decrease of 139,660 cars or 14.6 per cent under the same week in 1930. All commodity classifications showed decreases under the preceding week, while all commodity classifications except coal and grain showed decreases under last year. The summary, as compiled by the Car Service Division, Association of American Railroads, follows:

Revenue Freight Car Loading

For Week Ended Saturday, October 9 Districts	1937	1936	1935
Eastern	160,911	162,747	151,083
Allegheny	154,612	160,723	133,420
Pocahontas	56,335	58,089	53,530
Southern	111,250	111,188	101,508
Northwestern	132,322	138,541	116,703
Central Western	133,505	126,146	118,330
Southwestern	66,187	63,136	59,580
Total Western Districts	332,014	327,823	294,613
Total All Roads	815,122	820,570	734,154
Commodities			
Grain and Grain Products	35,823	30,054	37,014
Live Stock	20,572	21,911	22,727
Coal	156,948	155,730	146,815
Coke	9,326	10,318	8,277
Forest Products	34,001	34,813	32,404
Ore	58,477	60,752	33,734
Merchandise L.C.L.	173,654	173,097	164,612
Miscellaneous	326,321	333,895	288,571
October 9	815,122	820,570	734,154
October 2	847,245	819,597	705,974
September 25	840,446	807,243	629,935
September 18	826,565	789,857	706,820
September 11	711,299	700,147	699,786
Cumulative Total, 41 Weeks	30,701,212	27,813,710	24,552,212

In Canada.—Car loadings in Canada for the week ended October 9 totaled 61,388, as against 62,330 for the previous week and 60,278 for the corresponding week last year, according to the compilation of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
October 9, 1937	61,388	26,422
October 2, 1937	62,330	26,426
September 25, 1937	63,539	24,387
October 3, 1936	60,278	24,231
Cumulative Totals for Canada:		
October 9, 1937	2,010,776	1,062,179
October 3, 1936	1,849,300	916,562
October 5, 1935	1,775,112	846,737

Regulations Issued for Carriers' Taxing Act

The Commissioner of Internal Revenue has issued Regulations 100—Employers' Tax, Employees' Tax, and Employee Representatives Tax under the Carriers' Taxing Act of 1937 (the source of retirement fund), which, in addition to chapters covering the three distinct named taxes imposed by the act, also includes applicable provisions of the act, and separate chapters defining terms used in the act, governing returns and payment of the tax, providing for the adjustment of employees' and employers' tax, and governing credits and refunds.

According to the regulations, employees are not required to file returns. The first employers' returns required under the act will cover the period beginning January 1, 1937, and ending September 30, 1937, and are due on or before November 30, 1937. All subsequent returns are required to be filed on a quarterly basis, and the taxes shown to be due on a return must be paid at the time the return is filed.

The Commissioner has prescribed Form CT-1 for the use of employers in making the return of the employers' tax and the employees' tax and Form CT-2 for the use of employee representatives. Employers and employee representatives are required to keep such records as will enable the Commissioner of Internal Revenue to ascer-

tain the correct computation of the taxes. No particular form is prescribed for these records, but certain items of information are required to be shown.

Equipment Installed and On Order

Class I railroads, in the first nine months of this year, installed 56,307 new freight cars in service, the largest number for any corresponding period since 1930, according to the Association of American Railroads. In the same period last year, 27,178 new freight cars were put in service, and 3,172 in the same period two years ago. New freight cars put in service in the first nine months of 1930 totaled 70,033.

Of the new freight cars installed so far this year, coal cars totaled 28,669; box cars, including both plain and automobile, 21,903; refrigerator cars, 3,843; flat cars, 1,642; stock cars, 150; and miscellaneous cars, 100.

Class I railroads in the nine months of 1937 also installed 269 new steam locomotives and 47 new electric and Diesel locomotives, the number of new steam locomotives put in service being greater than for any corresponding period since 1930. In the same period in 1936, 59 new steam locomotives and 21 new electric and Diesel locomotives were installed, and 28 steam locomotives and 101 electric locomotives, in the same period in 1935.

New freight cars on order on October 1, totaled 24,345 compared with 19,337 on October 1, last year, and 7,441 on October 1, 1935. New steam locomotives on order on October 1, totaled 212, compared with 50 on the same date one year ago, and 14 on the same date two years ago. New electric and Diesel locomotives on order on October 1, totaled 28, compared with 16 last year and three, two years ago.

New freight cars and locomotives leased or otherwise acquired are not included in the above figures.

Carriers Oppose Increased Taxes in Colorado

Railroads in Colorado are preparing to oppose in the courts an increase of 20 per cent in the assessed valuation of railway property in the state, which was made by the Colorado Tax Equalization Board on October 16. This action, which has the effect of increasing the assessed value of railroad property in the state $24,472,640 above the figure that had been certified by the state tax commission, represents partial compliance with a recommendation of Governor Ammons' advisory council that the valuations be raised 40 per cent. The assessed valuations of railroad property in Colorado, as fixed by the tax commission and the equalization board, are $122,363,200 and $146,835,840, respectively.

Prior to the announcement of the new valuations, a group of attorneys for large railroads operating in Colorado informed the state board of equalization that it is without power either to raise or lower valuations and that its sole function, this year at least, is to fix the mill levy. Moreover, counsel for the railroads in bankruptcy informed the board that protests had been lodged with the tax commission against assessments made and, that if the equalization board boosted them further, an appeal would be taken to the courts and the tax situation would be tied up indefinitely in litigation. In support of their contention that railroad taxes should not be increased and, if anything, should be decreased, counsel for the railroads cited to the board of equalization the downward trend of railroad earnings in recent years and pointed out that increased taxation will mean payroll deductions and curtailment of maintenance expenditures.

Court Order Lops Off Westchester Service

The New York, Westchester & Boston, an electric suburban road in Westchester county, New York, and a former subsidiary of the New York, New Haven & Hartford, will discontinue service on its line extending approximately nine miles between New Rochelle, N. Y., and Port Chester, effective midnight, October 31, under an order issued recently by Federal Judge John C. Knox. Affecting about 4,000 Westchester county commuters to New York, the discontinued service involves stations at Larchmont, Mamaroneck, Harrison, Rye and Port Chester. At each of these points, the Westchester is paralleled by the main line of the New Haven affording direct commuting service to Grand Central terminal.

The Westchester road has been in trusteeship for some time and was, on June 28, upon failure of reorganization proceedings, transferred by the federal court at New Haven, Conn., to an equity receivership. Edwin L. Garvin and James L. Dohr, co-receivers of the road, announce also that service on the remainder of the road between the Bronx terminal and White Plains and New Rochelle will be continued only until December 31 under the same order.

Citizens of the communities affected met on October 18 in a mass meeting in Larchmont to discuss "ways and means." The plans discussed included a proposal of amending the court order to permit rush-hour service, a plea for extension of temporary service, and a request that the New Haven revise its train schedules for the affected points to render the short headway under which the Westchester road now operates. Other local "indignation meetings" are scheduled in the area.

Baldwin Pleads for Fair Transport Policy

"The time is here for the public to demand either a new and fair national transportation policy which would ban further imposition of handicaps on the carriers, or to become reconciled to public ownership of the railroads," L. W. Baldwin, president of the Missouri Pacific, warned the members of the National Association of Grain & Feed Dealers at a meeting held in Dallas, Texas, on October 12. Realizing that in general, the public does not desire public ownership of the carriers, especially after experience with federal control during the war, the speaker, nevertheless, was of the opinion that such control is "the only alternative to a continued public indifference about transportation matters."

Specifically, Mr. Baldwin attacked the "make-work" legislation now pending before Congress, pointing out that it would saddle additional burdens on the carriers, which have already, in the past few months, incurred extra expenses close to a half billion dollars annually. Referring to the unfair subsidization of competing forms of transport, which, he alleged, comprises another large factor in the unhealthy financial status of the railroads, he asserted that there is prevalent in the country a false idea of the benefit that may be expected from the federal motor carrier act. While admitting that the act is "a step in the right direction," Mr. Baldwin argued that "it is by no means the full and complete answer to the problem for the highways of practically all the states are cluttered with trucks carrying on a common carrier business, regardless of how they are classified, the owners of which thumb their noses at regulation and taxation and at organizations like this one, which view this itinerant, fly-by-night way of doing business as a menace."

Rock Island Record To Remain Open

The Interstate Commerce Commission had decided to keep the record in the case of the reorganization of the Chicago, Rock Island & Pacific open until at least February 28. This decision was made at the end of a two-day session which was held before the commission on October 19 and 20, when it heard expert testimony which placed the deferred maintenance of the Rock Island at considerably less than had been previously estimated. The principal witness was J. E. Slater, of Coverdale & Colpitts, who testified that the Rock Island entered 1937 with not more than $10,500,000 of deferred maintenance in both ways and structures and equipment. Of this total, the witness said, $10,000,000 represents deferred maintenance in roadway and structures and not more than $500,000 in equipment. He also told the commission that all deferred maintenance could be eliminated by 1942 by an annual "normal" expenditure of $12,000,000 for ways and structures and $17,500,000 for equipment.

T. E. Wood, chief of the transportation department of the Arkansas Corporation Commission, told the commission that he desired to withdraw from the record testimony which he gave in the RIAL case when the Louisiana & Arkansas had promised to get an entrance into Memphis, Tenn. He said that the L. & A. had found this to be impossible and in view of the fact that no benefit would accrue to the state of Arkansas, his commission was opposed to the sale of the RIAL to the L. & A. by the Rock Island.

James F. Holden, former Rock Island freight traffic manager and a retired vice-president of the Kansas City Southern, presented expert testimony regarding the condition of the road for the Burlington, Cedar Rapids & Northern protective committee.

C. & O. Charged with Domination of C. & E. I.

Charging that interests in control of the former Van Sweringen railroad empire are

seeking to perpetuate their control of a reorganized Chicago & Eastern Illinois to stifle competition and prevent bituminous consumers in the Great Lakes region from obtaining lower prices, John Carson, Consumers' Counsel for the National Bituminous Coal Commission, on October 18, filed a brief with the Interstate Commerce Commission, asking that the commission refuse to sanction the debtor's plan of reorganization of that road. The brief, which was signed by John Carson and Don Gallagher, attorney for the Consumers' Counsel, alleges that since obtaining control of the C. & E. I. the Chesapeake & Ohio has forced maintenance of rates for Indiana and Illinois coal which expert opinion considered unwise. They also charge that this policy has been deliberately followed to stifle competition in the Great Lakes region with the West Virginia coal hauled over its own lines.

Maintenance of present rates, says the brief, has caused the C. & E. I. to lose important markets and these losses have vitally affected the road which obtains nearly half of its normal revenue from coal. The brief, which is based entirely upon evidence brought out by the Wheeler committee investigating railroad finance, goes on to point out that experts have advised the bondholders committee that the only way to increase traffic on the C. & E. I. and regain its lost markets is to reduce its coal freight rates. The brief also charges that the C. & E. I. delivered to the Van Sweringen lines during the period of its control more than twice as much business as it received from these lines with no concrete benefits accruing to the C. & E. I. as a result of the Van Sweringen control.

Report on Cooper Auto Loader

A "second progress report" prepared by the Division of Engineering Research of the Association of American Railroads on the Cooper-Nightingale auto loader covers the new design and present status of that device, which for the past year has been under study by the Research division in collaboration with a committee of the A.A.R. Mechanical division and other organizations. During the past two months, the report points out, the Pullman-Standard Car Manufacturing Company has made a new design of the loader for the purpose of placing it on a production basis and thereby reducing its cost.

A demonstration of this latest design was made at Pullman's Michigan City, Ind., plant on October 6. Previous demonstrations have been made at the Grand Trunk Western freight station at Battle Creek, Mich.; the Oldsmobile loading docks at Lansing, Mich.; and the Studebaker loading dock at South Bend, Ind. Also, impact tests were made in the Grand Trunk Western's Battle Creek yards

The loader provides a means of loading four automobiles in a 40 ft. 6 in. box car. Two automobiles are supported on inclined decks while the other two rest on the floor of the box car underneath the inclined decks. New features incorporated in the Pullman design included: (a) Decks and auxiliary equipment in general made of Cor-Ten steel in form of pressings and

Photo by Baltimore & Ohio.

Members of R. & L. Historical Society Become Passengers of 1850 at B. & O. Excursion, Baltimore, Md.

using spot-welded connections; (b) hoists mounted on one side of the deck; (c) a new design of tie-down, which has reduced the cost of this part of the equipment; (d) a new design for indexing the front end of the deck. "In the redesign of this loader," the report states, "none of the good features of previous designs, such as safety, flexibility, ease of inspection, have been sacrificed."

Chinese Railway Damage Placed at $5,000,000

Japanese bombers have inflicted damage on the Chinese railway network in the current "undeclared" warfare to the extent of about $5,000,000, Mme. Chiang Kai-shek, wife of the Chinese civil and military leader, has revealed in a recent article appearing in the New York "Herald Tribune." The greater part of the damage, she writes, has been accomplished by a thorough shelling of sidings and bridges by planes cruising the entire lengths of the lines.

P. R. R. Proposes Trusteeship for New Haven Holdings

Based upon a desire "to assist so far as possible in the settlement of the so-called New England railroad problem and in a successful reorganization of the New Haven Railroad," M. W. Clement, president of the Pennsylvania, has tendered a proposal to the governors of the six New England states that the Pennsylvania place its stock holdings in the New York, New Haven & Hartford in trusteeship for a period of ten years, the trustees to be the presidents of Harvard, Yale and Brown universities and the Massachusetts Institute of Technology and their successors, and a bank or trust company to be chosen as a joint trustee, which group is to possess all the voting power vested in the stock holdings. The holdings for which such trusteeship is proposed comprise about 15.52 per cent of the total voting stock.

The proposal follows the filing of a petition for right to intervene in the New Haven reorganization case now pending before the Interstate Commerce Commission by the governors of Maine, New Hampshire, Vermont and Massachusetts. The prayer for such intervention was based upon the alleged contention that the extent of the Pennsylvania's holdings will block a reorganization of the New Haven satisfactory to New England interests. To this portion of the petition, Mr. Clement, in his proposal, replies that his road is "extremely desirous that its ownership of New Haven stock shall not interfere with reorganization of the New Haven railroad in the best interests of all concerned."

Touching upon the question of the relation of New England railroad territory with other districts, Mr. Clement points out that motor competition in the New England territory has become so keen that the rail carriers in that section are more than ever dependent for adequate revenues upon long-haul traffic exchanged with roads in other territory. "Obviously," his statement reads, "in the face of this situation, New England benefits from close affiliation between its own railroads and other large systems serving the rest of the country."

Railway Magazine Editors Meet at Memphis

The fall meeting of the American Railway Magazine Editors' Association was held at the Peabody Hotel, Memphis, Tenn., on October 8 and 9. Stanley W. Todd, editor of publications of the Railway Express Agency, New York, and president of the association, presided. Among the speakers was C. A. Radford, publicity manager of the Cleveland, Cincinnati, Chicago & St. Louis, who gave the editors pointers on how they could further advance the welfare of their roads by keeping employees posted on the seriousness of current trends. Another speaker, W. T. Gaynor, assistant advertising manager, New York Central Lines, New York, reviewed evidences of heightened interest by railroad "fans" in various phases of railroad operation, and reported that various types of "fan" trains, including those for snow and skiing enthusiasts, cyclists, amateur photographers, sightseers and one-day tourists, were being heavily patronized.

Other speakers were Avis Lobdell, special representative of the executive vice-president of the Union Pacific, and Olive Dennis, engineer of service, Baltimore & Ohio, who related their experiences in studying the point of view of women travelers with the intention of providing the little comforts and services needed to popularize train travel; George C. Howard, inspector of transportation, Louisville & Nashville, who asked the editors to give more thought and attention to safety matters; and H. L. Hoisington, director of the Railroad Y. M. C. A. west of the Mississippi, who explained the operation of the association's various railroad branches and the character-building work they are doing.

New officers were elected for 1938 as follows: Miss Martha Moore, director of employees' clubs, St. Louis-San Francisco, president; W. A. Crawford, editor of the Central of Georgia Magazine, Savannah, Ga., first vice-president; T. J. O'Meara, editor of the Chesapeake & Ohio and Pere Marquette magazine, Huntington, W. Va., second vice-president; and M. W. Jones, assistant editor, Baltimore & Ohio Maga-

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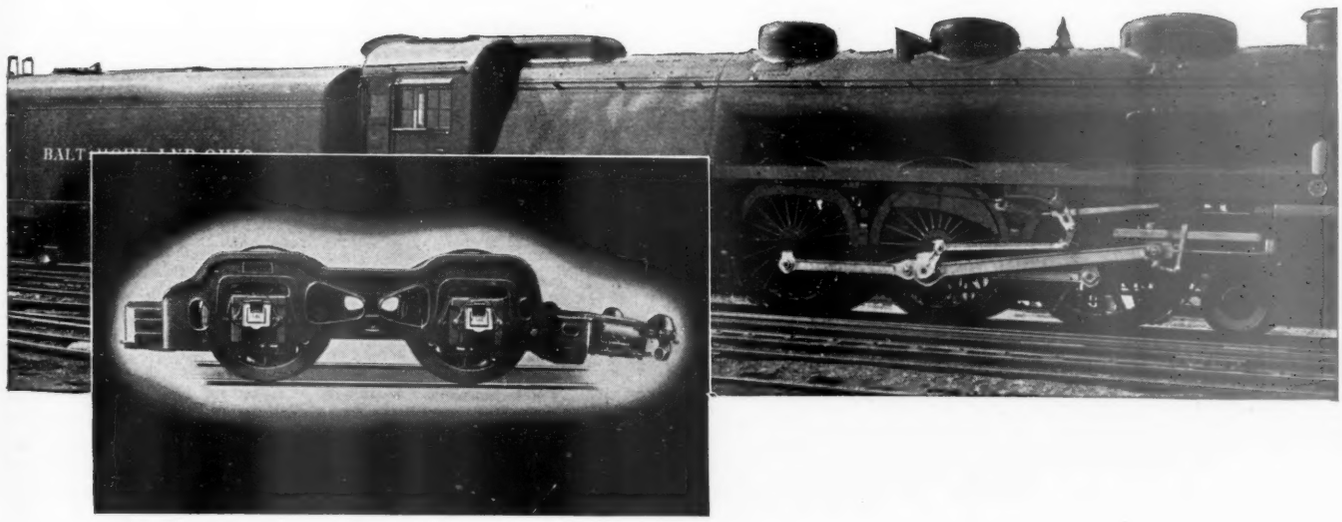
FOR MAXIMUM ECONOMY AND EFFECTIVENESS

The Locomotive Booster is Essential



The Locomotive Booster is an integral part of any locomotive design, which enables maximum road capacity without the necessity of carrying and maintaining an excess of dead weight. It capitalizes idle weight and spare steam by using it to provide additional tractive effort for starting, accelerating and over the "tight places."

This added tractive effort of The Booster permits smaller main cylinders and lower piston thrusts. It reduces the stresses throughout motion work and frames. The result is a locomotive that costs much less to maintain and operate.

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NEW YORK CHICAGO MONTREAL

zine, Baltimore, Md., secretary-treasurer. New members of the executive committee, in addition to Mr. Todd, include: Charles E. Kane, editor of the Illinois Central Magazine, Chicago; F. E. Chabot, assistant editor, Norfolk & Western Magazine, Roanoke, Va.; J. R. Mecouch, editor of the Mutual Magazine, Pennsylvania, Philadelphia, Pa.; and R. H. Bruckert, Kentucky & Indiana Terminal, Louisville, Ky. Miss Moore is the first woman to be elected president of the editors' association since it was formed 15 years ago.

Wheeler Committee Resumes Hearings

With Senator Harry Truman of Missouri presiding in the absence of Senator Wheeler, the senate committee which is investigating railroad financing, resumed hearings on October 20, with John P. Murphy, secretary of Alleghany Corporation, as the chief witness. The committee has announced that at this session it intends to go into the plans for reorganization of the Missouri Pacific and several other railroads which are now in the process of rehabilitation. The opening session was devoted entirely to a rehashing of previous testimony regarding the motives and activities of the Alleghany Corporation which had working control of the MOP at the time that it went into reorganization.

Mr. Murphy testified that the purposes of Alleghany was to purchase and hold railroad securities. Under cross-examination by Lucian Hillman, counsel for the committee, Mr. Murphy said that it was his opinion that the Van Sweringens went into the railroad field only with the definite idea of building up railroad properties and getting them on an earning basis. He said that he had often heard O. P. Van Sweringen deny that he had any desire to acquire a transcontinental transportation system and that he had never heard him affirm it.

During the discussion of the motives of the late Mr. Van Sweringen, Mr. Murphy expressed the belief that Mr. Van Sweringen was a "great builder of railroads." Senator Truman spoke up and said that he wanted the record to show that he had characterized Mr. Van Sweringen as a "great builder of holding companies."

The committee attempted to show that when Mr. Van Sweringen purchased control of the MOP he flaunted the desires and plans of the Interstate Commerce Commission regarding the proposed plan for the consolidation of the nation's railroads, by attempting to link up a western and an eastern system. Mr. Murphy denied that this was true, but would not venture a personal opinion as to how the railroads should be consolidated.

Pension Association Seeks Changes in Act

Seven changes in the present pension act will be advocated by the Railroad Employees' National Pension Association, Chicago, following a meeting in that city on October 11 and 12, when members voted approval of proposals made by W. W. Royster, president. The program of the meeting, designed for a three-day session, was completed in two days through the employment of a night session.

Following the retirement of President W. W. Royster and Vice-President J. A. Filbert, James L. Cosgrove, who has acted as general secretary-treasurer and editor of "Pension Revue," was elected president, George F. Strout of the Boston & Maine at Newberryport, Mass., was elected vice-president, and George P. Hall of the Northern Pacific at Staples, Minn., was elected general secretary-treasurer.

In presenting his proposal, President Royster said that the Railroad Retirement Act is wholly inadequate in meeting the security needs of the employees. His recommendations, adopted by members, include:

(1) The elimination of the disability clause "totally and permanently disabled for regular employment for hire" and the substitution therefor of "physical or mental disability for his regular employment"; the elimination of the requirement of an employee who has previously received disability annuities and has recovered and returned to work, to require of him when he definitely retires to accept a reduced annuity to compensate for the disability annuities theretofore paid him; the elimination of the "30-year" clause as a requirement of eligibility for a disability annuity.

(2) The elimination of the 4 per cent death benefits payable to the family of an employee who has become deceased and the substitution of a widow's annuity of $2.50 per month multiplied by her husband's years of service not exceeding 30.

(3) Compulsory retirement at age 60.

(4) Provision for a minimum to retiring employees of $2.50 per month, multiplied by the years of service not exceeding 30.

(5) Provision for an annuity of $2.50 to all widows of employees who have become deceased on or after the enactment date, August 29, 1935.

(6) Provision for a maximum annuity of $160 per month and a minimum annuity of $75 per month for 30 or more years of service.

(7) Provision that all annuities now being paid or about to be paid be recomputed and paid in accordance with the above provisions upon their passage.

Mines of Subsidiaries of Coal Users Not Exempt from Code

Only bituminous coal "produced and consumed by the same legal entity"—and not that mined by wholly-owned subsidiaries of coal-consuming companies—is entitled to exemption from the code under the Bituminous Coal Act of 1937, according to a leading decision handed down last week by the National Bituminous Coal Commission. The case involved mines of the Wheeling Steel Corporation and its subsidiaries, but similar petitions for exemption for owned or controlled coal properties have been filed by several railroads, including the Union Pacific, Missouri Pacific, Great Northern, Chicago & North Western and the Seaboard Air Line.

In the Wheeling case the commission granted the exemption sought for a directly-owned mine, the output of which is consumed by Wheeling; it denied the application for similar exemption for two other mines of wholly-owned subsidiaries of Wheeling. The decision construes that "captive-mine" exemption provision of the law, which stipulates that the code "shall not apply to coal consumed by the producer or to coal transported by the producer to himself for consumption by him."

The applicants urged a broad construction of the term "producer" but the commission found itself unable to "ignore conditions actually existing in the coal industry or disregard possible consequences of an interpretation such as is contended for by the applicants."

"We find no expressed national policy which encourages concentration of natural resources in the hands of large industrial consumers and certainly it was not the intention of Congress to weaken the effectiveness of the Act by any encouragement of unregulated relationships between producers and consumers of coal," it continues.

"The purposes of the Act are clear; to safeguard producers against unfair competitive practices, to protect the industry from the cycles of price cutting and wage reductions which too frequently have occurred in the past, to insure to the consumer adequate and dependable supplies of coal at reasonable prices by restoring and maintaining a state of fair competition in the industry.

"Certainly the need for effective regulation should have greater weight than any possible effect of a failure to grant this exemption to consuming industries which organize themselves on a national basis and extend their activities not only into fields of manufacturing and distribution but into the more remote fields of production of raw materials."

Thus, in construing the language of the exemption provision, the Commission concluded that "its inclusion in the Act was not an expression of intention on the part of Congress to create a class of unregulated coal producers but was a recognition of the legal principle that there being no commerce in the case of coal produced and consumed by the same legal entity, such production and consumption could not be dealt with under the power to regulate commerce."

Eastman Pleads For Co-ordination

(*Continued from page 583*)

and that in this respect they differ from most of the large industries of the present day, which make use of very elaborate systems of this character. He is of the opinion that it would be entirely feasible to develop such systems for all forms of transportation. The reluctance of the railroads to adopt such systems is due, he thinks, to the fact that it is highly probable that such a system "would show that many of their rates are well above cost and many well below." It is Mr. Eastman's belief that the railroads fear that if these facts were disclosed, they would be compelled to reduce the high rates but could not, as a practical matter, raise the low rates. He also feels that we should know what rates

are being made which cause actual loss rather than gain and impose a burden on other traffic in order that we may discover "where the best opportunities lie for increases in rates." He also realizes that it will take a long time to do this, but that it can be done.

"In the regulation of rates," Mr. Eastman said, "if we can get such information as to costs, it will be necessary to keep a tight rein on competitive rates, with a view to preventing those which have no economic justification and are purely destructive. It will be wise, I believe, to keep close watch over the rates that are made on the theory that they earn some margin over so-called out-of-pocket costs. It is a delusive and dangerous theory, unless kept within very strict bounds. It will also be well to encourage in every way the raising of the general level of competitive rates. Very often competitors can compete on a reasonably high level quite as well as on an unduly low level, and with much less danger to financial integrity."

He warned that we must also be alert to prevent an undue multiplication of competitors, where there is already a sufficiency of competition and no cheaper or better service is offered. He thinks that unless there is economic justification it would be well for the government to refrain from spending more money in the development of new transportation facilities.

Reverting to his theme of co-ordination, Commissioner Eastman expressed the hope that the co-ordination of services "can be promoted and facilitated by the development of a system of containers interchangeable between trucks, railroads, and water lines. Also through routes and joint rates should accompany this innovation. "In this connection," he asserted, "the entire transportation rate structure will require attention, for much of it was constructed to fit conditions which are different from those which exist today."

Mr. Eastman would not only co-ordinate the transportation services, but he thinks that the business of governmental regulation of transportation should itself be co-ordinated. "Nothing but conflict and confusion," he said, "can result from distributing the job among a number of independent public authorities." He would have all these regulatory functions concentrated under one head, that of the Interstate Commerce Commission for the reason that he feels that it is best suited to carry out this work in the most effective manner.

Commissioner Eastman believes that "there is need, in addition to the functions which the commission now performs as a quasi-judicial tribunal for the settlement of controversies, for an arm or adjunct which will not be preoccupied with such matters but be able to keep a broad outlook on the entire transportation situation, studying trends and needs for the future, advising the President and Congress as to policies and legislation, actively promoting the cause of transportation co-ordination, and working out improvements and economies which are quite feasible if the proper power is put behind them." He goes on to say that there is a possibility that such an agency as he describes might find time to give some attention to labor problems.

Supply Trade

The Nickel Chromium Plating Corporation, whose factory is at 3429 West 47th street, Chicago, has established an office at 1000 South Michigan avenue.

C. F. Cate has been appointed agent for the Southwestern portion of Texas and the Southern portion of New Mexico for the Roller-Smith Company, New York, with headquarters at 234 North Davis street, El Paso, Tex.

Raymond F. Stubblebine has joined the selling staff of the **Transportation Seating Division** of **Heywood-Wakefield Company,** Gardner, Mass. Mr. Stubblebine has 30 years' experience, having served as factory superintendent and eastern sales manager of the former Hale & Kilburn Company, and as sales representative of the J. G. Brill Company. Mr. Stubblebine will co-operate with Walter M. Swope and Bertram M. Berry, managers of sales at Philadelphia, Pa., and New York, respectively.

J. R. Thompson, division metallurgist of the **American Steel & Wire Co.,** a United States Steel Corporation subsidiary, has been appointed assistant manager of its metallurgical department at Cleveland, Ohio; **L. H. Dunham,** district metallurgist, Cleveland district, has been appointed district metallurgist of the Chicago district; **R. H. Barnes,** assistant district metallurgist, has been appointed district metallurgist at Cleveland and **R. R. Leo,** who has been serving the bolt trade in the Cleveland district for the past year, has been appointed division metallurgist at Cleveland.

Lester A. Crone, whose election as president and a director of the **Unit Truck Corporation,** Jersey City, N. J., was announced in the *Railway Age* of October 16, was born on July 25, 1902. He received his education in the public schools, East Orange high school, Stevens Preparatory School and Stevens Institute of Technology, receiving the degree of mechanical engineer in the class of 1926. Mr. Crone served as assistant to president from 1926 to 1934 of the Buffalo Brake Beam Company. He was then for two years vice-president and since 1936 president of that company, which latter position he will maintain in addition to serving as president and director of the Unit Truck Corp.

Alfred F. Crone, vice-president and a director of the Unit Truck Corporation, was born on September 24, 1907, and was educated in the public school, East Orange High School and Stevens Preparatory School. He served as metallurgist from 1927 to 1934, and then as assistant to president with the Acme Steel & Malleable Iron Works, Inc. In 1935, he was appointed assistant to president of the Buffalo Brake Beam Company, and since 1937 served as vice-president of the same company, which latter position will be maintained in addition to his duties as vice-president and director of the Unit Truck Corporation.

Charles R. Busch, vice-president and a director of the Unit Truck Corporation, was born on January 29, 1892, at Springfield, Mo., and received his education in the public and high schools of Springfield. In 1909, he served as material accountant at Tucson, Ariz., on the Southern Pacific of Mexico. Two years later, he became traveling accountant on the same road and in 1912 went as stock clerk to the section foreman on the St. Louis-San Francisco. The following year, he was appointed foreman of the car material general storehouse at Springfield, and from 1914 to 1917 was foreman and chief clerk of its reclamation plant at Springfield. In 1918, he was appointed stationery storekeeper at Portsmouth, Va., on the Seaboard Air Line. He then served as chief clerk to general storekeeper and during 1919 and 1920 as assistant general storekeeper on the same road at Portsmouth. In 1920, Mr. Busch went to the Buffalo Brake Beam Company as sales representative for eastern and southern districts, with headquarters at New York, which connection will be maintained in addition to his serving as vice-president and a director of the Unit Truck Corporation.

OBITUARY

Alan Nelson Lukens, inventor and chief mechanical engineer with the Railway Steel Spring Division of the American Locomotive Company for about 50 years, died at his home on October 19, at Elizabeth, N. J., at the age of 70 years.

William Luiz Rickard, head of the advertising agency of Rickard & Co., Inc., New York, died on October 5 in White Plains Hospital. Mr. Rickard was born in New York and started his business career 35 years ago with the Otis Elevator Company in its sales department. He later became manager of export sales and held that position for several years before becoming vice-president of the advertising agency of Ray D. Lillibridge, Inc. In 1912, with Clifford Sloan, Mr. Rickard formed the advertising agency of Rickard & Sloan, Inc., New York, the name of which became Rickard & Co., Inc., two years ago, when Mr. Sloan retired.

Percy C. Brooks, executive vice-president of Fairbanks, Morse & Co., Chicago, died in that city on October 15. He was born in Memphis, Tenn., on March 24, 1872, and was educated at the Georgia Military Academy and the Georgia School of Technology. He began his business career in Atlanta, Ga., in 1892 with the Atlanta Machine Works and in 1898 became associated with Fairbanks, Morse & Co. When the latter company organized a Canadian branch in 1906, Mr. Brooks became general manager and vice-president of the enterprise, with headquarters in Toronto, Ont. During the World War this plant manufactured ammunition. Following the war Mr. Brooks was transferred to St. Johnsbury, Vt., in charge of subsidiary factories owned by the E. & T. Fairbanks Company, and in 1920 was transferred to the New York offices, where he became president of the E. & T. Fairbanks Company, president of the Moline Scale Com-

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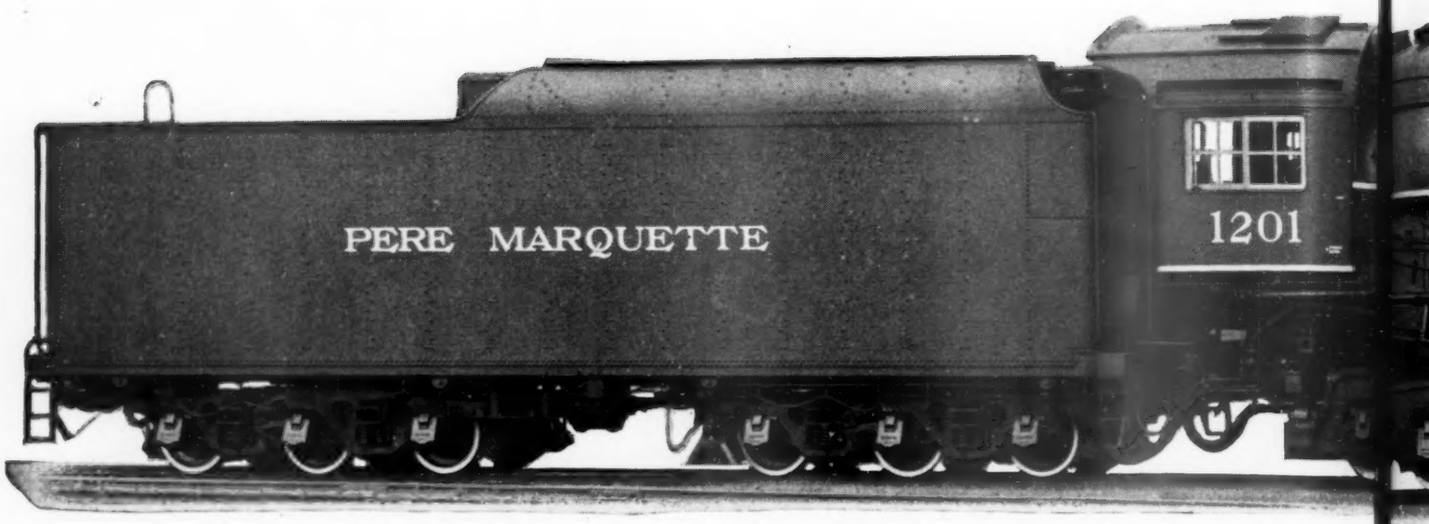
NEW FREIGHT POWER



WEIGHTS IN WORKING ORDER, POUNDS				
On Drivers	Eng. Truck	Trailer Truck	Total Engine	Tender Loaded
278,000	48,000	Front 53,500 Rear 66,000	445,000	358,000

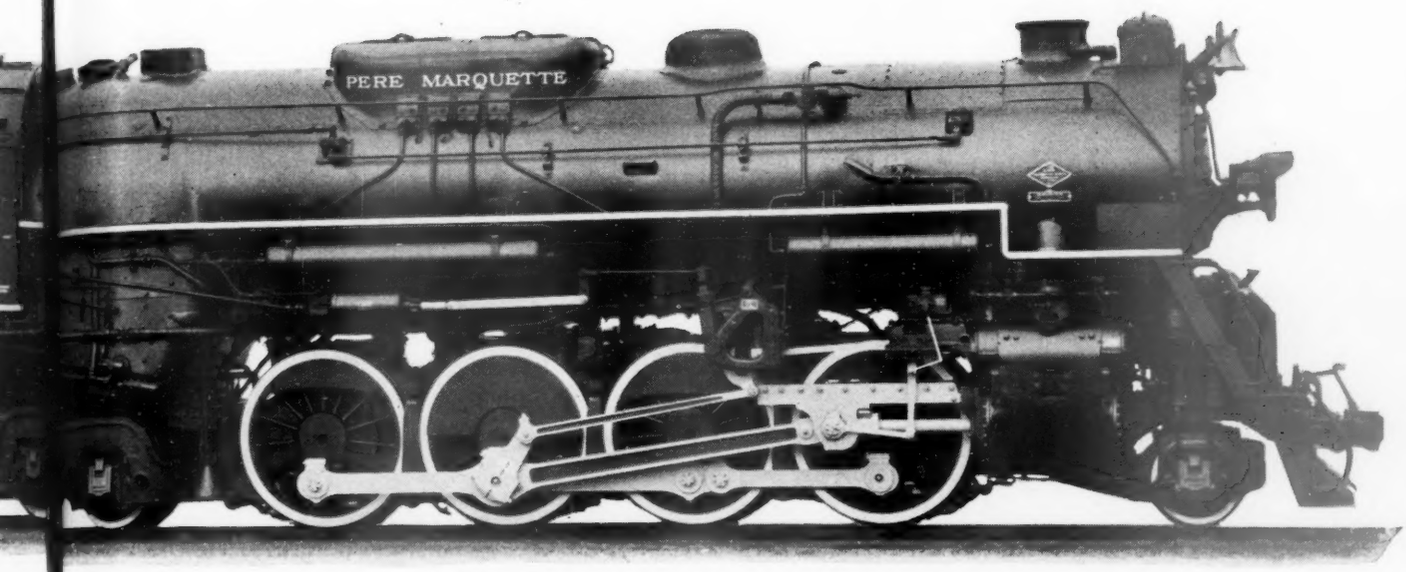
WHEEL BASE			TRACTIVE EFFORT
Driving	Engine	Eng. & Tender	Main Cylinders 69,350
18' 3"	42' 0"	87' 8¾"	With Booster 83,750

BOILER		CYLINDERS		DRIVING WHEEL
Diameter	Pressure	Diameter	Stroke	Diameter
87 15/16"	245 lbs.	26"	34"	69"

LIMA
LOCOMOTIVE WORKS
INCORPORATED

LIMA

FOR THE PERE MARQUETTE



PERE MARQUETTE

The first of fifteen heavy 2-8-4 Type locomotives (five of which are Booster equipped) recently delivered by Lima to the Pere Marquette Railway Company.

This power is designed to meet the requirements of high capacity, high speed freight service.

LOCOMOTIVE WORKS, INCORPORATED

LIMA OHIO

pany and vice-president of the Canadian Fairbanks, Morse Co., Ltd. In 1930 he was elected executive vice-president of the

Percy C. Brooks

parent company, with headquarters at Chicago, which position he held until his death.

Equipment and Supplies

FREIGHT CARS

ST. LOUIS-SAN FRANCISCO.—The trustees of this road have ordered six all-steel well-type cars of 70 tons' capacity from the American Car & Foundry Company.

SIGNALING

THE CHICAGO & NORTH WESTERN has placed a contract with the General Railway Signal Company covering nine sets of C. & N. W. type two-speed train control locomotive equipment. This includes nine complete sets of G.R.S. automatic train control, continuous, inductive, single-phase, two-speed system, for locomotive pilot mounting, driven from the right end of the front engine truck axle, which has inside bearings.

THE BALTIMORE & OHIO CHICAGO TERMINAL has placed an order with the General Railway Signal Company for the equipment for a direct-current, automatic block-signaling system for installation between McCook, Ill., and Blue Island. This system will employ searchlight signals. In addition, the order includes the necessary transformers, Type-K relays, and other incidental material.

THE UNION PACIFIC has placed a contract with the General Railway Signal Company for a C.T.C. interlocking machine for installation at Granger, Wyo. The control machine will have eight working levers for the control of six switch machines and eleven signals. This order also includes the necessary Type-K relays, rectifiers, transformers, switch machines, and signals.

Construction

ATCHISON, TOPEKA & SANTA FE.—A contract has been awarded to the E. J. Albrecht Company, Chicago, for alterations to this company's enginehouse at 18th street, Chicago, necessitated by the increased size of locomotives now in use. The work involves the tearing down of nine stalls of the enginehouse and the reconstruction of six stalls and a machine shop. The new stalls will be 132 ft. long and will be constructed of structural steel encased in concrete, with brick curtain walls. Because of the necessity of placing the enginehouse in operation at the earliest possible date, the construction work is being carried out by two shifts daily.

CHICAGO, ROCK ISLAND & PACIFIC.—A contract has been awarded to the Stark Building Company for the construction of a two-story freight warehouse, 92 ft. by 180 ft. in plan, at Cedar Rapids, Iowa. The warehouse will be leased to the Nash-Finch Company, fruit wholesalers.

GRAND TRUNK WESTERN.—A contract has been awarded to the Hunzinger Construction Company for the construction of a freight house, 200 ft. long and 32 ft. wide, at this company's car ferry terminal at Milwaukee, Wis. The freight house will have a covered platform, 14 ft. wide and 100 ft. long. In addition, the present freight house will be remodeled and a brick extension built to provide a new freight office, 60 ft. by 40 ft., in plan.

LOUISVILLE & NASHVILLE.—Bids are being received by the city of Louisville, Ky., for the construction of an underpass to carry Spring street under the tracks of the Louisville & Nashville. Including approaches, this structure will cost approximately $150,000. The bids will be opened on October 28.

NEW YORK, NEW HAVEN & HARTFORD.—A contract has been awarded for the reconstruction and widening of Corbin avenue bridge at New Britain, Conn., to cost about $30,000.

NORTHERN PACIFIC.—The Highway Commission of the State of Montana has prepared plans for the construction of a highway subway under the property and tracks of this company at Missoula, Mont., at an estimated cost of $296,136. The subway will extend under two streets, the freight house of the Northern Pacific, a warehouse of the Pacific Fruit & Produce Company and thirteen tracks. However, a proposal has been made for elimination of three of the existing tracks. The subway, which will carry a 30-ft. roadway and two 5-ft. sidewalks, will be approximately 400 ft. long, with a ramp 130 ft. long at the south end and one 120 ft. long at the north end. The construction will consist of I-beams on concrete abutments under the tracks and concrete I-beam construction under the streets and warehouses. It is expected that this project will be advertised for letting early in January, 1938.

Financial

BOSTON & MAINE.—*Abandonment.*—This road has applied to the Interstate Commerce Commission for authority to abandon a 23-mile segment of its Keene branch, extending from Keene, N. H., to Elmwood. Abandonment of operations on the line has previously been authorized.

CAMBRIA & INDIANA.—*Equipment Trust Certificates.*—The Interstate Commerce Commission, Division 4, has authorized this company to assume liability for $1,300,000 of 2¾ per cent equipment trust certificates, maturing in 10 equal annual installments of $130,000 on October 1, in each of the years from 1938 to 1948. The issue has been sold at 101.033 to a group composed of Salomon Brothers & Hutzler and Dick & Merle-Smith, of New York City and Stroud & Co., Inc., of Philadelphia, making the average annual interest cost to the company approximately 2.55 per cent.

CHICAGO, BURLINGTON & QUINCY.—*Equipment Trust.*—An issue of $3,650,000 ten-year 2½ per cent equipment trust certificates of this company have been sold to an investment group headed by Salomon Bros. & Hutzler at 100.277, and reoffered by the latter to the public at prices to yield from 0.85 per cent to 2.7 per cent, depending upon maturity.

CHICAGO, BURLINGTON & QUINCY.—*Acquisition.*—This road has applied to the Interstate Commerce Commission for authority to purchase for $75,000 certain Jacksonville, Ill., terminal properties of the Jacksonville & Havana. The transaction, covering about 3.2 miles of track, will enable the applicant "permanently to close a gap between two parts of its line . . . connection between which has for more than 30 years been effected by exercise of operating rights over said tracks."

CHICAGO & NORTH WESTERN.—*Abandonments.*—Trustees of this road have applied to the Interstate Commerce Commission for authority to abandon two sections of line totaling 24.4 miles. The lines involved are a 10.034-mile segment of the Galena branch in Jo Daviess County, Ill., and the 14.318-mile Hot Springs branch in Custer and Fall River counties, S. D.

HOBART SOUTHERN.—*Abandonment.*—The Interstate Commerce Commission, Division 4, has authorized this company to abandon its entire line of railroad extending from Truckee, Calif., to Hobart Mills, 6.4 miles.

LEHIGH VALLEY.—*Bonds.*—This company has applied to the Interstate Commerce Commission for authority to pledge such additional amounts of its general mortgage bonds as may be necessary to adequately secure loans of $1,800,000. This action has been taken because the banks holding the collateral have demanded that the company increase the collateral due to a decline in the market price of the general mortgage bonds.

MOUND CITY & EASTERN.—*Lease.*—This road has applied to the Interstate Com-

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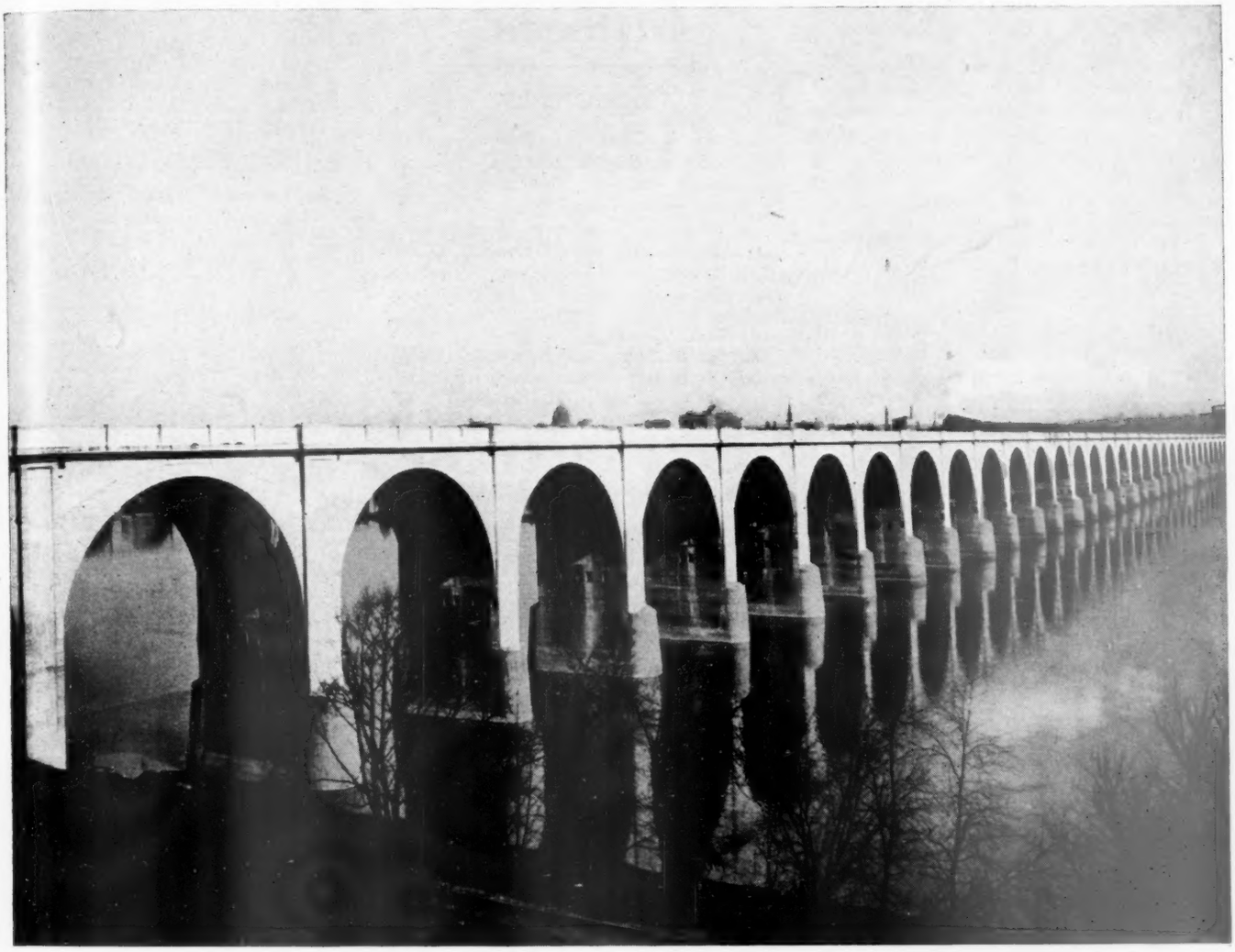
NO. 37 OF A SERIES OF FAMOUS ARCHES OF THE WORLD



SUSQUEHANNA RIVER ARCH BRIDGE

HARRISBURG, PA.

The Philadelphia and Reading Railroad bridge over the Susquehanna River at Harrisburg, Pennsylvania, made of re-inforced concrete, is a double-track structure 3,507 feet long with a maximum arch span of 66 feet and average height above water of 67 feet. 45,500 cubic yards of concrete and 1,300,000 pounds of re-inforced steel were used in its construction.

The Security Sectional Arch improves the fuel economy and capacity of any locomotive. On new Power the Security Arch is designed to suit its requirements. When older Power is modernized be sure that it, too, gets the benefit of a Security Arch designed to suit its needs.

* * *

THERE'S MORE TO SECURITY ARCHES THAN JUST BRICK

HARBISON-WALKER REFRACTORIES CO.

Refractory Specialists

AMERICAN ARCH CO.
INCORPORATED

Locomotive Combustion Specialists » » »

merce Commission for authority to lease and operate the Minneapolis & St. Louis' 29.6-mile line between Aberdeen, S. D., and Leola.

NEW YORK, NEW HAVEN & HARTFORD.—*Abandonment.*—The trustees have applied to the Interstate Commerce Commission for authority to abandon the following lines: 0.5 mile in Westwood, Mass.; 0.6 mile in Norwalk, Conn.; 0.2 mile in New Haven, Conn.; from Bridgeport, Conn., to Stepney, 7.4 miles; from West Haven, Conn., to Derby Junction, 8.2 miles; and from Wickford, R. I., to Wickford Landing, 0.5 mile.

OHIO & MORENCI.—*Stock.*—This company has applied to the Interstate Commerce Commission for permission to issue 52 shares of its no-par common stock in payment for 1.7 miles of switching tracks, located just outside of the village of Blissfield, Mich., and formerly belonging to the Blissfield Railroad Company.

ST. JOSEPH UNION DEPOT.—*Joint Operation.*—The Interstate Commerce Commission, Division 4, has issued an order authorizing the operation under contract of the properties of this company by the Atchison, Topeka & Santa Fe, the Chicago, Burlington & Quincy, the St. Joseph & Grand Island, the trustees of the Chicago Great Western, the trustees of the Chicago, Rock Island & Pacific, and the trustee of the Missouri Pacific.

SOUTHERN PACIFIC.—*Note.*—This company has applied to the Interstate Commerce Commission for authority to assume liability on a $1,460,000 note of the Los Angeles Union Terminal to the Wells Fargo Bank & Union Trust Company.

SOUTHERN PACIFIC.—*Acquisition.*—The Interstate Commerce Commission, Division 4, has authorized the El Paso & Southwestern to acquire control of the El Paso & Northeastern by acquisition of its capital stock.

WESTERN PACIFIC.—*Reorganization.*—The Interstate Commerce Commission, Division 4, has issued an order denying the petition of the Missouri Pacific for reconsideration of its petition for leave to intervene in the reorganization proceedings of this company.

Average Prices of Stocks and Bonds

	Oct. 19	Last week	Last year
Average price of 20 representative railway stocks..	31.27	35.11	59.33
Average price of 20 representative railway bonds..	69.07	71.93	84.50

Dividends Declared

Cincinnati, Sandusky & Cleveland.—Preferred, $1.50, payable November 1 to holders of record October 23.

Richmond, Fredericksburg & Potomac.—7 Per Cent Guaranteed, $3.50, semi-annually; 6 Per Cent Guaranteed, $3.00, semi-annually, both payable November 1 to holders of record October 30.

Tennessee Central.—7 Per Cent Conv. Preferred, $7.00, payable September 15 to holders of record September 5.

Western Maryland. — First Preferred, $7.00, payable November 15 to holders of record November 1.

Wheeling & Lake Erie.—4 Per Cent Prior Lien, $1.00, quarterly; 5½ Per Cent Preferred, $1.37½, quarterly, both payable November 1 to holders of record October 25.

Railway Officers

EXECUTIVE

Harvey A. Connett, superintendent of the Oregon division of the Union Pacific at Portland, Ore., has been appointed to the newly created position of assistant to vice-president of operations, with headquarters at Omaha, Neb. **Dalton C. Olmstead,** assistant to the executive vice-president, with headquarters at Omaha, has retired.

George F. Ashby and **Edward J. Connors,** assistants to the executive vice-president of the Union Pacific, have been appointed to the positions of assistant to the president, with headquarters as before at Omaha, Neb. These appointments were announced following the promotion of **William M. Jeffers** from executive vice-president to president. Mr. Jeffers has stated that the new assignments of Mr. Connors and Mr. Ashby "will materially broaden the scope and authority of their offices in the conduct of executive and policy matters."

W. F. Schaff, vice-president of the New York Central, west of Buffalo, and the Ohio Central Lines, with headquarters at Cleveland, Ohio, effective November 1, has been appointed vice-president of the system, with headquarters at Chicago. In his new position, Mr. Schaff will continue to have supervision over his present territory as well as that of **T. W. Evans,** vice-president in charge of lines in the vicinity of Chicago, including the Indiana Harbor Belt and the Chicago River & Indiana, with headquarters at Chicago, who will retire on October 31, and **Henry Shearer,** vice-president and general manager of the Michigan Central (part of the N.Y.C. System), with headquarters at Detroit, Mich., who retired on October 1.

J. L. McKee, assistant vice-president of the system, with headquarters at Chicago, has been appointed assistant vice-president and general manager of the system, with headquarters at Detroit, in which capacity he will succeed Mr. Shearer as executive officer at that point. Mr. McKee will have supervision over the territory embracing the Canada, Detroit, Michigan and West divisions. **F. S. Risley,** assistant general manager of the lines Buffalo and East, with headquarters at Syracuse, N. Y., has been appointed assistant vice-president and general manager, with headquarters at Cleveland, Ohio, with jurisdiction over the territory embracing the Erie, Franklin, Cleveland, Toledo and Western divisions, and the Ohio Central. **F. F. Riefel,** superintendent of the Toledo division, with headquarters at Toledo, Ohio, has been appointed assistant vice-president, with headquarters at Chicago.

FINANCIAL, LEGAL AND ACCOUNTING

Henry H. Burbank, joint facility examiner of the Pennsylvania, with headquarters at Chicago, will retire on November 1.

P. H. Todd, assistant auditor of freight accounts of the Southern Pacific, has been promoted to auditor of freight accounts, with headquarters as before at San Francisco, Cal., to succeed **F. D. Sanborn,** who has retired. **H. J. Kihn,** assistant auditor of freight accounts, succeeds to the duties of Mr. Todd with the same title, and **F. A. Howard,** special accountant, has been promoted to assistant auditor of freight accounts to succeed Mr. Kihn. San Francisco is the headquarters of all of these officers.

Earl G. Taylor, assistant treasurer of the New York, Ontario & Western, has been elected treasurer, with headquarters as before at New York, as noted in the *Railway Age* of October 16. Mr. Taylor was born on January 4, 1880, at Rushford, N. Y., and was graduated from Rushford High School and Rochester Business Institute. He entered railroad service on April 27, 1903, with the Buffalo, Rochester & Pittsburgh (now Baltimore & Ohio), with headquarters at Rochester, N. Y. After holding various positions in the accounting and freight claim departments of that road, he was appointed special accountant in 1920, and chief accountant in July, 1928. In January, 1932, he joined the Railroad Credit Corporation in Washington, D. C., serving as assistant treasurer and later as comptroller of that corporation. Mr. Taylor was employed by the New York, Ontario & Western in June, 1937, to assist in preparing the plan of reorganization, and on August 15, 1937, he became assistant treasurer.

James M. Souby has been appointed assistant general counsel, Association of American Railroads, with headquarters at Washington, D. C., as noted in the *Railway Age* of October 16. Mr. Souby was born on August 10, 1882, at Karnes City,

James M. Souby

Texas, and was graduated from Vanderbilt University, receiving an A.B. degree in 1908 and an LL.B. in 1910. He entered railroad service on June 1, 1913, as commerce counsel for the Kansas City Southern, which position he held until December 15, 1919, when he went with the Union Pacific as assistant valuation and commerce counsel. He held the latter position until

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The *Cost* of Horsepower Is Greatly Reduced . . . when

a locomotive is equipped with a Type "E" SUPERHEATER

A locomotive costing $105,000, equipped with a Type "A" superheater, and developing 3500 hp., costs $30.00 per horsepower.

If equipped with a Type "E" superheater, a 20% increase in capacity is obtained, or 700 hp. This additional horsepower is obtained for a small fraction of $30.00.

Apply Type "E" superheaters to new and underpowered existing locomotive boilers.

THE SUPERHEATER COMPANY

Representative of AMERICAN THROTTLE COMPANY INC.

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January, 1928, when he was appointed valuation and commerce counsel. On January 1, 1936, Mr. Souby was appointed western general counsel for the Union Pacific, the position he held until his recent appointment.

Rush N. Harry, treasurer of the several companies comprising the New York Central system, will retire on October 31, after 48 years of service. He will be succeeded by **Rudolph P. Ahrens,** assistant treasurer, with headquarters as before at New York. In addition to **G. H. Howe,** who at present holds the position of assistant treasurer, **R. H. Mansfield** and **C. W. Tallcott,** assistants to treasurer, will be appointed assistant treasurers. The headquarters of all these officers will be at New York and the appointments are effective November 1.

Mr. Harry entered the service of the New York Central & Hudson River (now New York Central) in 1889 and on November 1, 1909, he was appointed local treasurer of the Cleveland, Cincinnati, Chicago & St. Louis at Cincinnati, Ohio. On March 1, 1920, he was appointed treasurer of that company under federal control. On April 2, 1925, Mr. Harry was appointed assistant general treasurer of the New York Central lines and on July 1, 1932, became assistant treasurer of the New York Central lines. He was appointed treasurer of the several companies comprising the New York Central system on August 29, 1934, the position he held until his retirement.

Mr. Ahrens entered the service of the Indiana, Illinois & Iowa (now New York Central) on October 1, 1889, at Chicago. In June, 1896, he was appointed assistant treasurer and in July, 1898, was appointed secretary and treasurer. In April, 1903, he was also appointed local treasurer and assistant secretary of the Lake Shore & Michigan Southern (now New York Central) and other companies, with headquarters at Cleveland, Ohio. Following the consolidation of various companies forming the New York Central Railroad Company, he was in January, 1915, appointed assistant treasurer of that and various other companies. In January, 1918, under the United States Railroad Administration —the New York Central Lines, he was appointed assistant to federal treasurer. In March, 1920, following federal administration, he was appointed assistant treasurer of the New York Central and affiliated companies. In July, 1932, when the Treasury Department offices located at Cleveland, Ohio; Detroit, Mich., and Cincinnati, Ohio, were consolidated with the New York office, he was appointed assistant treasurer of the several companies comprising the New York Central system, with headquarters at New York.

Rudolph P. Ahrens

OPERATING

G. C. Wendling, division engineer on the Louisville & Nashville, with headquarters at Birmingham, Ala., has been promoted to superintendent of the Birmingham division, with the same headquarters, to succeed **J. A. Morrison,** deceased.

H. S. Nelson has been appointed trainmaster on the Middle division of the Atchison, Topeka & Santa Fe, with headquarters at Newton, Kan., to succeed **H. G. Arnold,** whose promotion to superintendent was reported in the *Railway Age* of October 9.

G. H. James, road foreman of engines, Wilkes-Barre division of the Pennsylvania, with headquarters at Sunbury, Pa., has been appointed acting freight trainmaster of the Maryland division at Wilmington, Del. **C. Crawford,** assistant trainmaster of the Eastern division, with headquarters at Pittsburgh, Pa., has been appointed acting passenger trainmaster of the Baltimore division at Baltimore, Md.

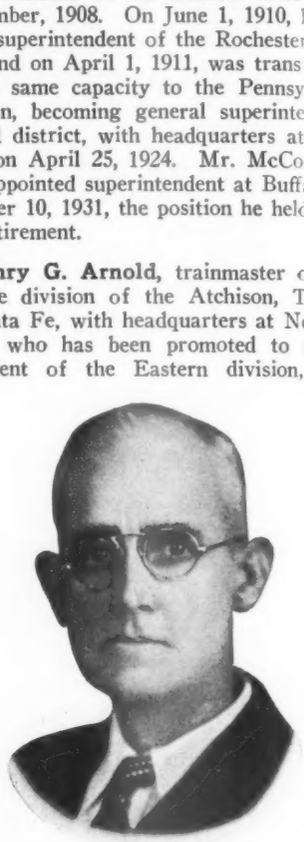
H. J. McGougan, a road conductor on the Chicago Great Western, has been appointed to the newly-created position of terminal trainmaster, with headquarters at St. Paul, Minn. **W. R. McCollom,** general yardmaster at Chicago, has been appointed to the newly-created position of terminal trainmaster at the same point, and the position of general yardmaster has been abolished. Both of these appointments became effective on October 16.

H. L. Margetts, general superintendent of the Michigan Central (part of the New York Central System), with headquarters at Detroit, Mich., has been appointed assistant general manager, with the same headquarters. **L. J. Petrot,** assistant superintendent on the New York Central, with headquarters at Toledo, Ohio, has been promoted to superintendent of the Toledo division, with the same headquarters, to succeed **F. F. Riefel,** whose appointment as assistant vice-president at Chicago is noted elsewhere in these columns.

Frank E. McCormack, superintendent of the Buffalo division of the New York Central, will retire on October 31, after more than 52 years of continuous service with this company. **Philip C. Agans,** assistant superintendent at Albany, N. Y., has been appointed superintendent of the Rochester division, with headquarters at Rochester, N. Y., succeeding **C. A. Raymonda,** who has been transferred in the same capacity to the Buffalo division, with headquarters at Buffalo, N. Y.

Mr. McCormack was born on September 11, 1867, at Lawsons, N. Y., and entered the service of the New York Central in April, 1885, as an operator at Pierrepont Manor, N. Y. He was appointed dispatcher at Watertown, N. Y., in 1890; chief dispatcher at Watertown in 1894; trainmaster at Carthage, N. Y., in 1896; and chief trainmaster at Watertown in 1905. Mr. McCormack became assistant superintendent at Watertown in 1907 and superintendent of the Ontario division in September, 1908. On June 1, 1910, he became superintendent of the Rochester division and on April 1, 1911, was transferred in the same capacity to the Pennsylvania division, becoming general superintendent, second district, with headquarters at Buffalo, on April 25, 1924. Mr. McCormack was appointed superintendent at Buffalo on October 10, 1931, the position he held until his retirement.

Henry G. Arnold, trainmaster on the Middle division of the Atchison, Topeka & Santa Fe, with headquarters at Newton, Kan., who has been promoted to superintendent of the Eastern division, with headquarters at Emporia, Kan., as reported in the *Railway Age* of October 9, was born on April 5, 1882, at Livingston, Ala. He first entered railway service in April, 1897, as an extra gang water boy on the Southern. In November of the same year he left this company to go with the Postal Telegraph Company as an operator, returning to railway service in June, 1898, and serving as an operator, ticket clerk and station agent on the Southern until September, 1907. During the following seven years Mr. Arnold saw service as an operator and train dispatcher with the St. Louis-San Francisco, the Union Pacific and the Missouri Pacific. At the end of this period he entered the service of the Santa Fe as a dispatcher, being appointed night chief dispatcher in November, 1917. In April, 1918, he was made day chief dispatcher and in May, 1919, he was advanced to trainmaster, which position he held until December, 1930. At that time he was made rules examiner, returning to the position of trainmaster in August, 1931. His promotion to superintendent of the Eastern division became effective October 10.



Henry G. Arnold

John J. Brinkworth, assistant superintendent, New York Central, with head-

quarters at Buffalo, N. Y., has been appointed superintendent of the New York Terminal district and the River division, with headquarters at New York. **C. H. Weber** has been appointed assistant superintendent of the Buffalo division and **B. H. Dayton** has been appointed assistant superintendent of the Hudson and Mohawk divisions. **N. J. Evans** has been appointed trainmaster of the Buffalo division; **J. D. Carkhuff,** trainmaster of the Mohawk division; **H. J. Gassett,** trainmaster of the Hudson division, and **H. G. Farnham,** trainmaster of the Rochester division. **B. J. Bohlender,** superintendent, dining service, has been appointed manager, dining service, with headquarters at New York, succeeding **John R. Smart,** who will retire on October 31, after 44 years of service with this company. The above appointments are effective November 1.

Mr. Brinkworth was born on July 3, 1887, at Buffalo, N. Y., and entered the service of the New York Central on August 23, 1902, as yard clerk at East Buffalo. On May 1, 1909, he became chief clerk to superintendent at Buffalo and on

John J. Brinkworth

May 1, 1912, was appointed assistant trainmaster. He became trainmaster of the Buffalo division on November 1, 1916, and on December 20, 1924, was appointed assistant superintendent at Weehawken, N. J. Mr. Brinkworth became superintendent of the Ohio division, Ohio Central lines, on April 1, 1926, and superintendent at Buffalo on January 16, 1930. He has been assistant superintendent at Buffalo since October 10, 1931.

P. F. O'Sullivan, trainmaster on the Atchison, Topeka & Santa Fe, with headquarters at Chillicothe, Ill., who has been promoted to superintendent of the Southern Kansas division, with headquarters at Chanute, Kan., as reported in the *Railway Age* of October 9, has been identified with the Santa Fe continuously for 30 years. He was born on March 17, 1886, at Hutchinson, Kan., and after a public school education he continued his studies at St. Benedicts College, Atchison, Kan. Mr. O'Sullivan entered railway service on August 27, 1907, as a clerk in the track department of the Santa Fe at Hutchinson. In 1909 he became a statistician at La Junta, Col., and two years later he was sent to Newton, Kan., as a transportation clerk in the office of the general superintendent. In 1916, Mr. O'Sullivan was appointed chief clerk in the same office, holding this position until 1920, when he was appointed chief transportation clerk in the office of the general manager at Topeka, Kan. In 1923 and 1924 he served as transportation inspector on the Oklahoma and Illinois divisions, then being promoted to trainmaster on the latter division. His promotion to superintendent of the Southern Kansas division became effective on October 1.

P. F. O'Sullivan

Alfred H. Wright, superintendent of the New York Terminal district and the River division of the New York Central, with headquarters at Weehawken, N. J., has been appointed assistant general manager, line Buffalo and East, with headquarters at Syracuse, succeeding **F. S. Risley,** who has been appointed assistant vice-president and general manager at Cleveland, Ohio. Mr. Wright was born on May 17, 1878, at Putnam, N. Y., and entered the service of the New York Central on November 30, 1900, as clerk in the transportation department at Rotterdam Junction, N. Y. On March 1, 1910, he became chief clerk to superintendent at Utica, N. Y., and on January 8, 1911, became assistant trainmaster of the Mohawk division, being transferred in the latter capacity to the River division on March 16, 1911. Mr. Wright became trainmaster of the River division on October 1, 1913; assistant superintendent of that division on May 1, 1923, and superintendent, same division, on December 16, 1924. He was appointed assistant to general superintendent and marine manager, New York Terminal district, on January 1, 1927, and assistant to assistant general manager of that district on February 1, 1930. On November 19, 1930, Mr. Wright was appointed assistant to general superintendent, New York Terminal district, and on October 10, 1931, he became assistant superintendent of that district. He was appointed superintendent of the New York Terminal district and River division on May 1, 1932, having charge of transportation and marine departments, which position he held until his appointment as assistant general manager at Syracuse, effective November 1.

Alfred H. Wright

TRAFFIC

M. A. Glover, traveling freight and passenger agent on the St. Louis-San Francisco, at Kansas City, Mo., has been promoted to general agent, with headquarters at Minneapolis, Minn., to succeed **Charles Thorburn.**

F. H. Baird, assistant passenger traffic manager of the New York Central System, with headquarters at Chicago, has been promoted to passenger traffic manager, with the same headquarters, to succeed **D. M. Bowman,** who has retired, and the position of assistant passenger traffic manager has been abolished. **L. A. Schroeder,** assistant general passenger agent at New York, has been appointed chief assistant general passenger agent, with headquarters at Cleveland, Ohio, to succeed **J. S. Hall,** who has retired.

J. H. Bauer, assistant general freight agent at Chicago, has been appointed assistant freight traffic manager at St. Louis, Mo., to succeed **S. A. Townsend,** who has retired.

D. S. Mackie, assistant freight traffic manager at Chicago, has been appointed to the newly-created position of freight traffic manager, with the same headquarters. **E. L. Whitney,** general freight agent at Chicago, has been promoted to assistant freight traffic manager, with the same headquarters, to succeed Mr. Mackie. **LeRoy Blue,** general freight agent of the Indiana Harbor Belt (part of the N.Y.C. System) at Chicago, has been appointed general freight agent for the system, with the same headquarters, to succeed Mr. Whitney, and **A. W. Morgan,** general agent for the system at Milwaukee, Wis., has been appointed general freight agent of the I.H.B., succeeding Mr. Blue.

E. F. Leuchtmann, chief clerk in the office of the assistant freight traffic manager at Detroit, Mich., has been appointed assistant general freight agent at the same point, to succeed **A. Johnson,** who has retired. **C. H. Witt,** general agent at Terre Haute, Ind., has been transferred to Indianapolis, Ind., to succeed **W. T. Peacock,** who has retired.

C. B. Craig, assistant general freight agent on the New York, Chicago & St. Louis, with headquarters at Buffalo, N. Y., has been promoted to the newly-created

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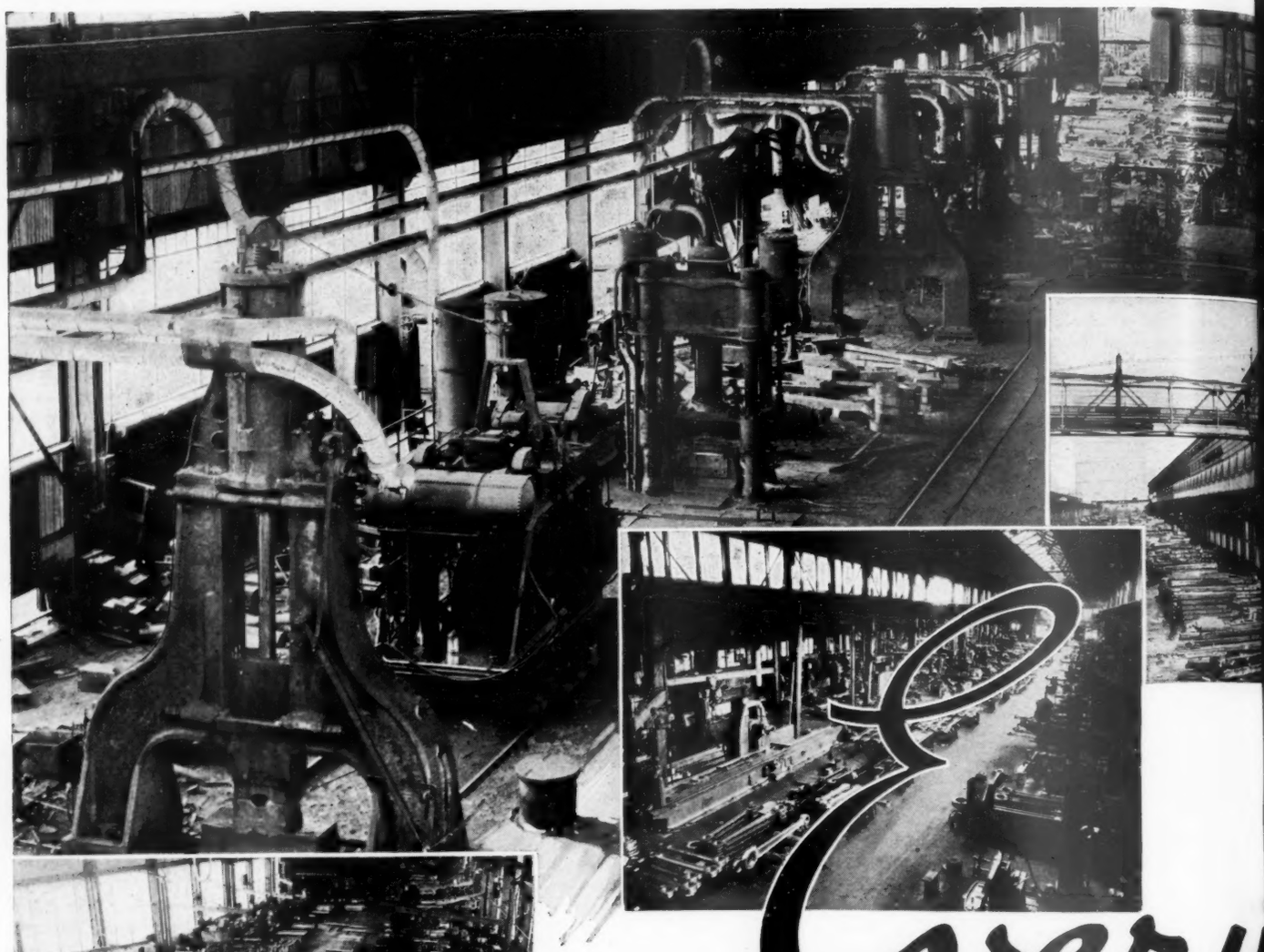

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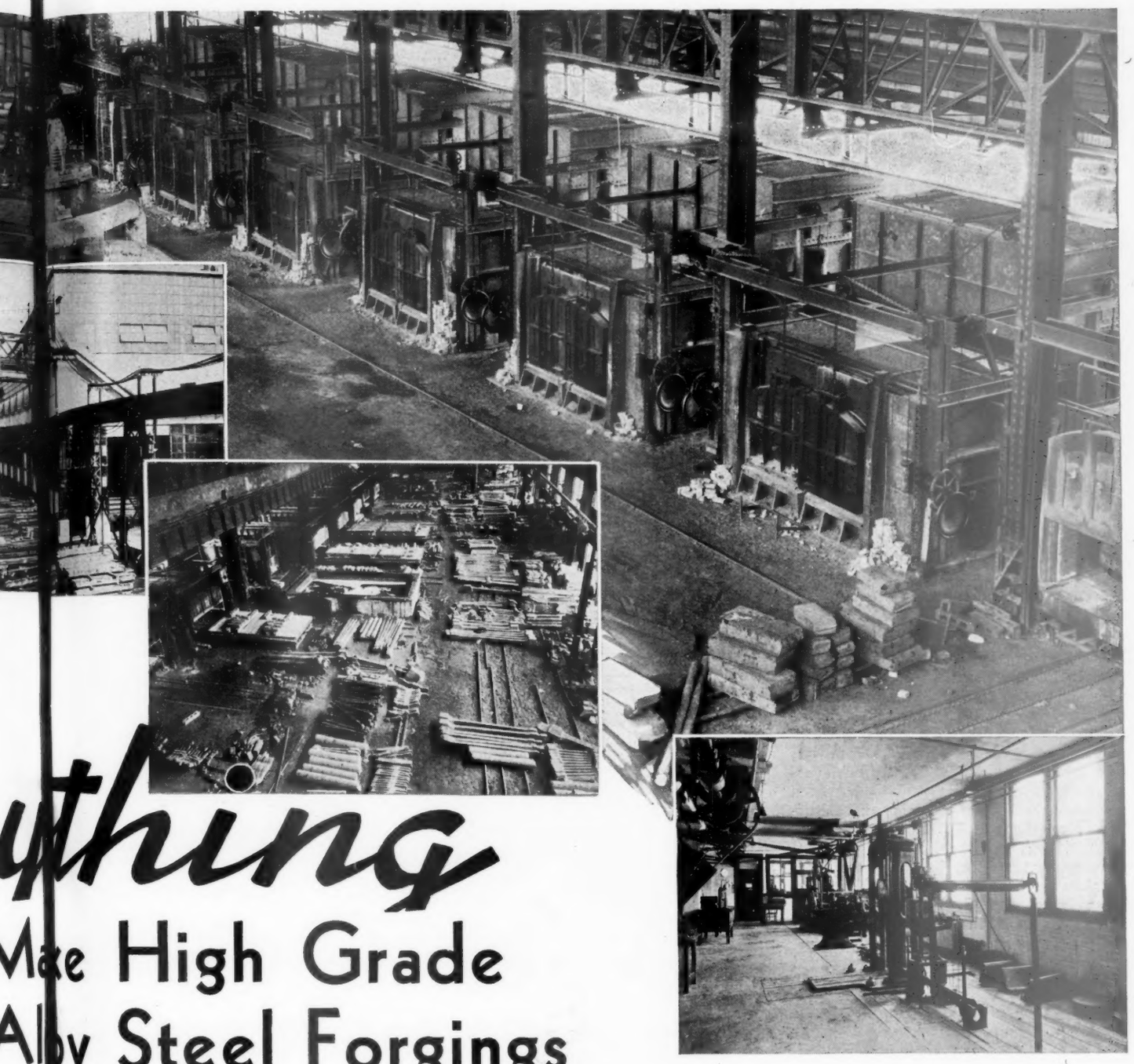

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position of general freight agent, with headquarters at Cleveland, Ohio. **E. S. Bodie,** division freight agent at Fort Wayne, Ind., has been promoted to assistant general freight agent, with headquarters at Buffalo, to succeed Mr. Craig, and **R. W. Ruble,** general agent at Columbus, Ohio, has been sent to Fort Wayne as division freight agent to replace Mr. Bodie. **A. E. Herrman,** commercial agent at Erie, Pa., has been promoted to general agent at Louisville, Ky., to succeed **Harold Wilding,** who has been transferred to Columbus to replace Mr. Ruble.

E. E. Pierce, assistant general passenger agent of the New York Central, has been appointed general passenger agent, with headquarters as before at Boston, Mass., succeeding **W. A. Barrows,** who is retiring. **O. J. Petrie,** city passenger and ticket agent at Boston, has been appointed assistant general passenger agent, succeeding Mr. Pierce. **L. A. Schroeder,** assistant general passenger agent at New York, will succeed **J. S. Hall,** chief assistant general passenger agent at Cleveland, who will retire. **J. W. Higgins,** general agent at New York, has been appointed assistant general passenger agent at New York, succeeding Mr. Schroeder. **C. Fendrych, Jr.,** secretary to the general passenger traffic manager at New York, has been appointed general agent to succeed Mr. Higgins. **H. R. Cummings,** chief clerk in the office of the general passenger agent at Boston, has been appointed assistant general passenger agent at Boston, succeeding **E. W. Goodwin,** who will retire. **F. C. Detenbeck,** passenger representative at Buffalo, has been appointed district passenger agent at Buffalo, succeeding **A. P. Blosier,** who will retire. **J. T. Kelliher,** traveling passenger agent at Boston, has been appointed district passenger agent at Worcester, Mass., succeeding **J. E. Sweeney,** who will retire. **C. W. Cummings,** superintendent car service of the Boston & Albany, at Springfield, Mass., has been appointed division freight agent, New York Central, at Springfield, succeeding **H. A. Noble,** who will retire. **G. D. Avery,** senior traveling freight agent at New Haven, has been appointed general agent there, succeeding **D. C. Heffernan,** who has been appointed assistant New England agent at Boston.

F. L. Gordon, who has been appointed freight traffic manager (in charge of rates and divisions) of the Southern Pacific Lines in Texas and Louisiana, with headquarters at Houston, Tex., as reported in the *Railway Age* of October 16, first entered railway service in 1902 as an office boy in the traffic department of the Southern Pacific at Houston. Until 1914, he occupied various clerical positions in the same department, then resigning to go with the Arizona & New Mexico (now part of the Southern Pacific), with which road he remained for about seven years. At the end of this period he left railway service to accept a position with the Humble Oil & Refining Company at Houston, and after two years with this company he returned to railway service as general freight and passenger agent of the Dayton & Goose Creek (now part of the Southern Pacific). In 1926 he returned to the

F. L. Gordon

Southern Pacific as assistant general freight agent, in which capacity he specialized on rates and divisions matters. In February, 1936, he was promoted to assistant freight traffic manager at Houston, which position he was holding at the time of his recent appointment as freight traffic manager, which was effective on October 1.

James G. Morrison, general freight agent of the Northern Pacific, with headquarters at St. Paul, Minn., has been promoted to freight traffic manager, effective October 16, with the same headquarters, to succeed **L. R. Capron,** whose appointment as assistant vice-president, traffic department, of the Chicago, Burlington & Quincy, was reported in the *Railway Age* of October 9. **Roy E. Smith,** assistant

James G. Morrison

to the general traffic manager, at St. Paul, has been appointed general freight agent to succeed Mr. Morrison, and **John P. Dennis,** assistant general freight agent at St. Paul, advances to the position of assistant to the general traffic manager, to succeed Mr. Smith.

Mr. Morrison has been in railroad service continuously for 44 years. He was born on December 3, 1878, at Amboy, Ill., and after a public school education he entered railway service in 1893 as a messenger on the Minneapolis & St. Louis. In May, 1894, he left this company to become a clerk on the St. Paul & Duluth (now part of the Northern Pacific), where he remained until April, 1897, when he resigned to enter the service of the Chicago Great Western. With the latter company Mr. Morrison served as a clerk, chief rate clerk and chief clerk in the general freight department until October, 1909, when he was advanced to assistant general freight agent, later being promoted to assistant to the vice-president. During Federal control of the railroads Mr. Morrison also served as assistant secretary of the Western Freight Traffic committee of the United States Railroad Administration. In March, 1920, he left the Great Western to enter the service of the Northern Pacific as assistant general freight agent. In December, 1925, he was advanced to general freight agent, which position he held until his recent promotion to freight traffic manager.

Mr. Smith was born on November 11, 1885, at St. Paul, Minn., and attended Webster school, St. Paul, and Y.M.C.A.

Roy E. Smith

night school. He entered railway service in 1902 as an office boy in the general freight department of the Northern Pacific and, after several months in this capacity, was assigned to the freight claim department as a clerk. In 1904, he returned to the general freight department as a clerk and, in 1909, was appointed rate clerk in the same department. Two years later Mr. Smith was promoted to contracting freight agent and in 1912 he was appointed traveling freight agent. Next he became chief clerk to the assistant general freight agent and in 1917 he was made chief clerk to the vice-president in charge of traffic. In the following year he was assigned to the position of chief clerk to the traffic manager, later being appointed chief clerk to the freight traffic manager. In 1924, Mr. Smith became chief clerk in the general freight department, and for several months in 1925, he served as assistant to the freight traffic manager. In December of that year he was advanced to assistant general freight agent and in November, 1935, he was appointed assistant to the general traffic manager, which position he was holding at the time of his recent appointment as general freight agent.

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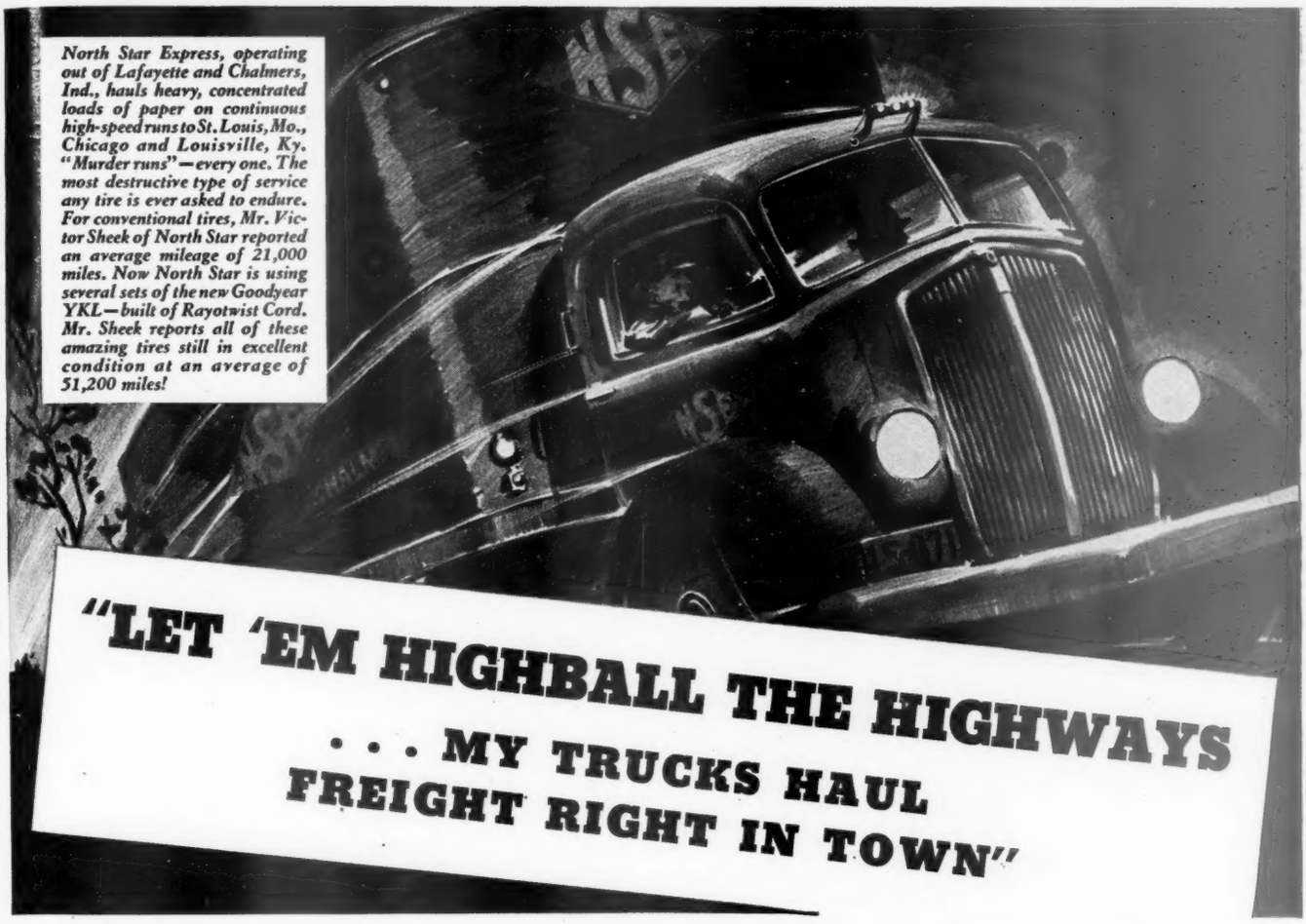

North Star Express, operating out of Lafayette and Chalmers, Ind., hauls heavy, concentrated loads of paper on continuous high-speed runs to St. Louis, Mo., Chicago and Louisville, Ky. "Murder runs"—every one. The most destructive type of service any tire is ever asked to endure. For conventional tires, Mr. Victor Sheek of North Star reported an average mileage of 21,000 miles. Now North Star is using several sets of the new Goodyear YKL—built of Rayotwist Cord. Mr. Sheek reports all of these amazing tires still in excellent condition at an average of 51,200 miles!

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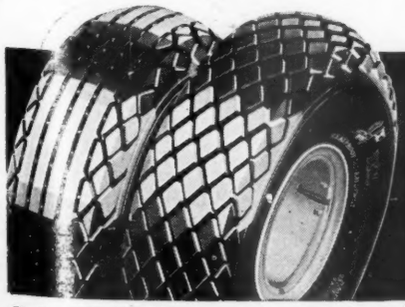

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P.S.—GOODYEAR BATTERIES, RIMS, FAN BELTS AND RADIATOR HOSE ARE MONEY-SAVERS, TOO!

ENGINEERING AND SIGNALING

George R. Pflasterer, engineer with the Union Switch & Signal Company, with headquarters at Swissvale, Pa., has been appointed to the newly-created position of

George R. Pflasterer

signal engineer of the Bessemer & Lake Erie, with headquarters at Greenville, Pa., effective October 11. Mr. Pflasterer was born at Danville, Ill., on December 30, 1897, and, after attending Georgia School of Technology (1915-1917), entered railway service as a signal helper on the Great Northern at St. Paul, Minn. During the World War, he served in the United States Marine Corps, and in December, 1918, he entered the employ of the Nashville, Chattanooga & St. Louis, at Nashville, Tenn., being promoted to foreman of the signal shop on October 1, 1920. On November 1, 1929, he left the N. C. & St. L. to enter the commercial engineering department of the Union Switch & Signal Company, and, in 1932, left this company to enter the employ of the Tennessee Electric Power Company, Nashville, Tenn. In 1934 he returned to the Union Switch & Signal Company, being assigned to the patent department, the position he was holding at the time of his recent appointment.

MECHANICAL

G. H. Nowell, master mechanic, Saskatchewan district of the Canadian Pacific, with headquarters at Moose Jaw, Sask., has been transferred in the same capacity to the British Columbia district, with headquarters at Vancouver, B. C.

R. J. MacNamara, assistant trainmaster of the Monongahela division of the Pennsylvania, with headquarters at Pittsburgh, Pa., has been appointed acting road foreman of engines of the Wilkes-Barre division, with headquarters at Sunbury, Pa.

E. E. Machovec, mechanical superintendent of the Atchison, Topeka & Santa Fe, Southern district, Western lines, with headquarters at Amarillo, Tex., has also assumed the duties of master mechanic of the Plains division of the Panhandle & Santa Fe. **G. R. Miller,** master mechanic of the Plains division and of the Pecos division, with headquarters at Clovis, N. M., after October 20 will confine his jurisdiction to the latter division.

C. E. Plott, assistant master mechanic of the Galesburg-Ottumwa divisions of the Chicago, Burlington & Quincy, with headquarters at Galesburg, Ill., has been promoted to master mechanic of the Beardstown division, with headquarters at Beardstown, Ill., to succeed **Don Nott,** who has been transferred to the Casper division, with headquarters at Casper, Wyo., to succeed **C. O. Davenport,** deceased. Mr. Nott will also have jurisdiction over the Sheridan division. **E. W. Fritts,** road foreman of engines on the Hannibal division, has been promoted to assistant master mechanic of the Galesburg-Ottumwa divisions at Galesburg, to succeed Mr. Plott.

J. D. Muir, who has been appointed superintendent motive power and car department, Eastern lines of the Canadian Pacific at Toronto, Ont., as noted in the *Railway Age* of October 16, entered the service of the Canadian Pacific in 1905 as a machinist at Moose Jaw, Sask. In 1909 he became shop foreman at Moose Jaw and held the same position at Calgary the following year. Mr. Muir was locomotive foreman successively at Calgary, Alta., Medicine Hat, Alta., and Winnipeg, Man., from 1910 to 1916. In 1917 he became general foreman, motive power department, at Vancouver, B. C., and in February, 1919, assistant works manager at Angus shops, Montreal. In 1928 he was promoted to the position of assistant superintendent motive power and car department, Western lines, with headquarters at Winnipeg, although for a time in 1933, during the illness of the late Mr. Whiteley, he was acting superintendent motive power and car department for the Eastern lines.

J. D. Muir

OBITUARY

C. O. Davenport, master mechanic on the Chicago, Burlington & Quincy, with headquarters at Casper, Wyo., died at that point on September 20.

Edgar W. Perrott, supervisor of service for the Pennsylvania at St. Louis, Mo., died on October 13 at St. Luke's hospital, St. Louis, following an illness of several months. Mr. Perrott was formerly superintendent of freight transportation at Chicago, relinquishing this position in 1929 to become superintendent of service at St. Louis.

C. B. Guthrie, president of the C. B. Guthrie Tariff Bureau, Inc., of Washington, D. C., died on October 15 at his home in that city. He was 71 years of age.

Emory A. Stedman, who retired on February 28, 1932, as vice-president of the Central departments of the Railway Express Agency, with headquarters at Chicago, died on October 15 at Santa Fe, N. M., where he had made his home since his retirement. He was 75 years of age.

Herbert Rush Preston, general solicitor of the Baltimore & Ohio, with headquarters at Baltimore, Md., died in that city on October 15 of heart disease at the age of 76. Mr. Preston entered the legal department of the Baltimore & Ohio in 1896 and become assistant general attorney in 1903. Three years later he was appointed general solicitor, the position he held until his death.

Robert A. Sheets, signal engineer of the Chicago & North Western, with headquarters at Chicago, died suddenly on October 16, a few minutes after he was stricken with an embolism while at work in his office. Mr. Sheets had been connected with the signal department of the North Western for more than 30 years. He was born on September 5, 1885, and Chicago, and signal supervisor at the Chicago terminal and at Boone, Iowa. In January, 1925, Mr. Sheets was promoted to assistant engineer, train control, in attended the Chicago Engineering Institute. Previous to entering railway service as a leverman on the North Western in January, 1907, Mr. Sheets was a stationary fireman. In June, 1907, he was transferred to the signal department as a batteryman on the Galena division at Maywood, Ill. Later he served successively as a maintainer at West Chicago, Ill., signal foreman at Sterling, Ill., signal inspector in the signal engineer's office at

Robert A. Sheets

charge of field construction, and, after three years in this capacity, he was further advanced to assistant signal engineer. He had been signal engineer of the North Western since December 3, 1930.